

COAL AGE

With Which is Consolidated
The Colliery Engineer

INDEX TO VOLUME XIV

July 1 to December 31, 1918

EXPLANATORY NOTE

Note—Illustrated articles are denoted by an asterisk (*), book notices by a dagger (†). Titles are often abbreviated. They are indexed under their most important words, or, if no word be distinctive, under their first one (except "A," "The," etc.), or under some topical word not found in the title. Authors', geographical and other proper names are also used freely. Following is a list of the pages included in the several numbers of the volume, by date:

| | Page |
|---------------|-----------|
| July 6..... | 1-46 |
| July 13..... | 47-90 |
| July 20..... | 91-154 |
| July 27..... | 155-200 |
| Aug. 1..... | 201-248 |
| Aug. 8..... | 249-296 |
| Aug. 15..... | 297-340 |
| Aug. 22..... | 341-384 |
| Aug. 29..... | 385-426 |
| Sept. 5..... | 427-476 |
| Sept. 12..... | 477-522 |
| Sept. 19..... | 523-578 |
| Sept. 26..... | 579-624 |
| Oct. 3..... | 625-672 |
| Oct. 10..... | 673-720 |
| Oct. 17..... | 721-768 |
| Oct. 24..... | 769-806 |
| Oct. 31..... | 807-845 |
| Nov. 7..... | 846-888 |
| Nov. 14..... | 889-928 |
| Nov. 21..... | 929-970 |
| Nov. 28..... | 971-1014 |
| Dec. 5..... | 1015-1058 |
| Dec. 12..... | 1059-1102 |
| Dec. 19..... | 1103-1146 |
| Dec. 26..... | 1147-1188 |

A

| | Page |
|---|-------------------------------|
| Abjure the word not..... | 1041 |
| Accident prevention, Progress in..... | 483 |
| Accident, Significant electric locomotive..... | 273 |
| Accidents at Ellsworth collieries..... | 480 |
| Accidents, British mine..... | 1164 |
| Accidents—Buried under rock, yet lives, Graham..... | 403 |
| Accidents, Careful records reduce mine, Fay..... | 503 |
| Accidents, England..... | 269 |
| Accidents, Mine, Jarrett..... | 262 |
| Accidents, Missouri, (Note)..... | 335 |
| Accidents on American railroads..... | 562 |
| Accidents to eyes..... | 402 |
| Accounting, cost, in mine haulage, Discussion..... | 876, 1175 |
| Accounting of materials 417, Discussion..... | 755, 956 |
| Accusation that does not asperse..... | 1041 |
| Affelder, W. L. Hecla Co. gives service medal..... | 228 |
| Air-cylinder lubrication, (Inq.) 522, Discussion..... | 836, 1132 |
| Air, Excess, and heat efficiency..... | 585 |
| Air trap, effective..... | 343 |
| Alabama, coal production..... | 178, 663 |
| Alabama prices..... | 406, 866 |
| Alarm to show fan trouble, Decker..... | 972 |
| Alaska, coal mining, (Notes) 378, 571, 965, 1007..... | |
| Alaskan engineering, special commission..... | 785 |
| Allport, J. H. Prices bituminous coal, 685, 736..... | |
| Amenities in mine villages, Fuetter..... | 496 |
| Amer. Inst. of Mg. Engrs.—Colorado meeting 351, Paper..... | 685, 736 |
| Americanizing the foreigner, Discussion..... | 286, 415, 521, 614, 708, *873 |
| American vs. British ideals..... | 138 |
| Analysis—Character South Wales coals..... | 751 |
| Analysis of power consumption..... | 777 |
| Analyzed, Coal, Serviss..... | 1154 |
| Anthracite, breakers and washeries, Hazards and safeguards in, Glover..... | 901 |
| Anthracite costs, New schedule..... | 905 |
| Anthracite from lake docks..... | 275 |
| Anthracite fuel made by hand..... | 450 |
| Anthracite, Loss in storage, (Inq.)..... | 330 |
| Anthracite mine cave situation..... | 598 |
| Anthracite, Scraper mining of thin bed, Humphrey..... | 316 |
| Anthracite shipments increase..... | 601 |
| Anthracite, Sizes of fresh mined..... | 780 |
| Anthracite stripping..... | 57 |
| Anthracite coal stripping, Kennedy..... | 644 |
| Anthracite, To increase production..... | 997 |
| Appleton, J. Specializing in the mine..... | 109 |
| Apply your thought, Hodges..... | 49 |
| Armatures, Winding (Inq.)..... | 1137 |
| Ash in coal, Waste due to excessive..... | 692 |
| Ashley, M. Constructive practice in mining..... | 1135 |
| Ashmead, D. C. Determination of proper size of storage battery locomotives..... | 548 |
| Ashworth, J. Outbursts of gas in Crowsnest field *443, Explosive gases in coal..... | 990 |
| Auburn & Alton Coal Co.'s record run (Note)..... | 1007 |

| | Page |
|---|------|
| Austria able to meet its coal needs..... | 907 |
| Axle steel, Heat treatment, Discussion..... | 232 |
| Axle straightening..... | 535 |
| Axles, heat treated, Pearson..... | 315 |
| Axles, Mine-car, Lieberman..... | 219 |

B

| | Page |
|--|----------|
| Back to the mines, Strohm..... | 1103 |
| Bailey Coal Co.—Unique system of mining, Appleton and Somers..... | 109 |
| Bailey, J. W. Squaring crusher hammer ends..... | 1104 |
| Balance..... | 478 |
| Ball, J. L. Notes on electrical trouble 251, Freezing of shafts..... | 1175 |
| Barges, coal carried on, (Notes)..... | 291, 801 |
| Barges, Concrete coal, Springer..... | 628 |
| Barges, Govt. to operate coal..... | 133, 603 |
| Barnes, F. M. Effect of pneumatic reciprocating tools on nervous system..... | 510 |
| Barth, K. C. Preservative treatment of mine timbers..... | 1025 |
| Batteries, Spikeless, Lawrence..... | 769 |
| Bavaria coal shortage, (Note)..... | 1095 |
| Beck, L. M. Makeshift, extension cord..... | 48 |
| Bell, Alarm, on mine car, Stafford..... | 429 |
| Bell & Zoller Mfg. Co.—Zeigler mine, Harris..... | 252 |
| Bell, Who says miner can't ring, (Poster)..... | 626 |
| Belt, Replacing, Cohen..... | 626 |
| Bells, Putting on heavy..... | 1105 |
| Ressemer Coal & Coke Co.—Village layout, Miller..... | 130 |
| Bibliography, machine loading, Engel..... | 974 |
| Bier, J. A. Mine-car door..... | 141 |
| Binding timbers on a truck, Rice..... | 48 |
| Bituminous loaded at Lake Erie docks, 814, 987..... | |
| Bituminous prices fixed, Garnsey, Norris and Allport..... | 685 |
| Bituminous reduction, New England..... | 950 |
| Bituminous storage authorized, increased..... | 755 |
| Bituminous supplants anthracite..... | 225 |
| Bituminous under steam boilers..... | 266 |
| Bituminous used in 1917 and 1918..... | 360 |
| Bituminous, use of Illinois and Indiana..... | 865 |
| Blackdamp on pitches, (Inq.) 568, Discussion..... | 753 |
| Blacken bolt heads..... | 580 |
| Blacksmith shop, fireproof..... | 812 |
| Blagg, E. (Poster)..... | 29 |
| Blakeley, A. G. Routine determination specific gravity of coal, 1078, Erratum..... | 1165 |

BLASTING

| | Page |
|--|----------|
| —Blasting with lightning circuit, Pascoe..... | 342 |
| —Blasting ditch in mine, (Inq.) *1128, Discussion..... | 326, 415 |
| —Detonators, Handling electric, Discussion..... | 80 |
| —Explosives in mining, Permissible, Discussion..... | 518 |
| —Explosives, Safety in use of, La Motte..... | 490 |
| —Firing wet holes, Price..... | 48 |
| —Fuse tester, Lauther..... | 298 |
| —Liquid oxygen explosives..... | 540 |
| —Priming a cartridge, Discussion..... | 327, 321 |
| —Priming a cartridge..... | 1111 |
| —Shotfiring in mines, Discussion..... | 234, 327 |
| —Squibs vs. electric fuse (Inq.) 145, Discussion..... | 328 |
| Blue Diamond Coal Co.—Photo..... | 312 |
| Blue gem coal in Tenn. (Inq.) 80, Discussion..... | 189 |
| Boiler scale prevention..... | 1163 |
| Boiler tubes, (Photo)..... | 675 |
| Boilers—Coke stokers..... | 676 |
| Boilers, Fans and, Owens..... | 937 |
| Boilers, Raising two 350 hp. Scheble..... | 392 |
| Boilers, Steam, at coal mines (Inq.)..... | 1179 |
| Boilers—Waste gases for steam generation, Kershaw..... | 591 |
| Bonding and welding, Huber..... | 100 |
| Bonuses, Kentuckian advocates..... | 559, 561 |
| Book reviews..... | 623 |
| Bounce condition, Unusual, Watts..... | 1028 |
| Bow Dougherty's ghost..... | 642 |
| Bowker, G. The wagon mine a menace..... | 464 |
| Bowron, C. E. Purchase of mining machinery and supplies..... | 782 |
| Bradley, J. G. Sketch; portrait..... | 404 |
| Braley, B. Responsibility *354, The coal army *540, *Straight stuff..... | 625 |
| Brantley coal cutter..... | 596 |
| Brazil, Fuel problem..... | 1160 |
| Breathing apparatus, Lyons..... | 1019 |
| Brehm, C. G. Practical signal system on a mine slope..... | 479 |
| Brennan, W. B. Loading out coal with electric shovels..... | 1018 |
| Breweries coal cut to 50 per cent..... | 67 |
| Brick and concrete work, Novel..... | 780 |
| Bright, G. Electrical labor-saving devices..... | 1021 |
| —*116 Elimination of power losses..... | 1021 |
| Briquetting machine, Michaelson, Klebba..... | 596 |

| | Page |
|---|--------------------------------|
| British Columbia, Chemainus, drilling..... | 856 |
| British Columbia, Coal mining, Dunn..... | 55 |
| British Columbia, mining rights, (Notes)..... | 83 |
| British Columbia, New Mine at Cassidy's..... | *981 |
| British Columbia, production..... | 524, 525, 759, 839, 1051, 1094 |
| Brooks, L. W. Waterproof plunger grease 261..... | |
| Broughton, H. J. Coal, explosives, war..... | *158, *214, *258 |
| Brown, C. J. Reliable gears..... | 99 |
| Brown, J. F. K. Methods of operation 313, Reciprocating underground conveyor..... | *682 |
| Brown, W. A. Automatic caging saves labor..... | 257 |
| Buggy, J. Loading coal at the face..... | 416 |
| Bulletin for large coal users..... | 396 |
| Bullock, O. The mining situation 234, Hindrances to coal production 462, Loading coal at the face 658, Miner and his pleasure 796, Wagon mine a menace..... | |
| 834, Calculating a room switch..... | 1087 |
| Bumpus, W. (Photo)..... | 652 |

BUREAU OF MINES

| | Page |
|--|------|
| —Analyses of mine and mine car samples..... | 396 |
| —Coal-tar products..... | 19 |
| —Combustion, (Notes) 98, 167, 170, 343, 351, 404, 447, 547, 555, 590, 597, 681, 987..... | |
| —Report, yearly..... | 1125 |
| —Ventilation at firing time..... | 1000 |
| Buried under rock and yet lives, Graham..... | 403 |
| Burns, Treatment of, with wax..... | 989 |
| Burton, C. P. Stripping coal with a grader..... | 694 |
| Bush, D. D. resigns..... | 1039 |
| Bushings, driving, placing, extracting, (Photo)..... | *808 |
| Business as usual..... | 704 |
| Butler, W. H. Straightening bent rails..... | 722 |

C

| | Page |
|---|---|
| Caging saves labor, Automatic, Brown..... | 257 |
| Cahen, A. J. Crosshead removed by heating *428, Replacing a belt..... | *626 |
| Callan, W. H. Lubrication of air compressors..... | 211 |
| Callen, A. C. Determination of latitude and meridian..... | *188 |
| Calloway, R. J. Safety on electric hoist..... | 478 |
| Cambria Steel Co.—Hinckston Run mine, Winn..... | 647 |
| Cameron, W. H. (Photo)..... | 485 |
| Canada—Provincial fuel administrators..... | 880 |
| Canada, Provincial rights dispute, Dunn..... | 352 |
| Canada, western, coal supply, (Notes) 147, 617..... | |
| Canadian Western Fuel Co.—Cage accident 617, 729, Working thick coal, Stafford..... | *890 |
| Canal, New York Barge, coal transportation, Discussion..... | 835 |
| Canal route for Illinois coal..... | 73 |
| Canilvers, Steel, support headframe..... | *553 |
| Carbon Hill Coal Co.—Plant at Carbonado, Jarrett..... | *308 |
| Carbonization, coal, Meredith 129, (Note)..... | 965 |
| Carnegie Coal Co.—Marcus screen, Miller..... | *171 |
| Car chocks..... | *973, *1104 |
| Car, coal, 75 yrs. old, (Note)..... | 38 |
| Car hoist made of pipe fittings..... | 535 |
| Car shortage, (Notes) 37, 147, 276, 289, 377, 419, 468, 713, 799, 839, 880..... | |
| Car trips returning to mine, (Photo)..... | 312 |
| Cars, coal, more loaded this year..... | 745 |
| Cars, Cost of upkeep of mine, (Inq.) 918, Discussion..... | 1174 |
| Cars, Iron vs. wood mine, (Inq.) Husband 615, Discussion 793, 913, 960, 999, *1045, 1174..... | |
| Cars loaded, 1918..... | 994 |
| Cars, Railroads should deliver clean..... | 1172 |
| Cars, roller bearing mine, Porter..... | 1197 |
| Cars, transfer..... | *1122 |
| Carruth, C. W. Calculating a room switch..... | 1088 |
| Cartoons..... | 454, 496, 514, 552, 601, 604, 634, 636, 638, 640, 651, 700, 735, 787, 788, 1121 |
| Caves, mine, (Notes)..... | 83, 1141 |
| Cave, mine, situation..... | 598 |
| Cement gun in bituminous mine, Sloman..... | *1158 |
| Cement gun, Relined a mine shaft with..... | *400 |
| Cement work, Waterproofing, (Inq.)..... | 1092 |
| Central Penn. Coal Producers' Assn.—Record bulletin..... | *270 |
| Chain take-up, (Photo)..... | 156 |
| Chance, H. M. Acetylene and electric cap lamps..... | 1118 |
| Chance acetylene safety lamp..... | *824 |
| Chappelle, C. W. Advantages storage-battery locomotives *437, Discussion..... | 439 |
| Character South Wales coals..... | 751 |
| Charcoal prices..... | 68 |
| Chart of chimney losses..... | 268 |

COAL AGE

With Which is Consolidated
The Colliery Engineer

INDEX TO VOLUME XIV

July 1 to December 31, 1918

EXPLANATORY NOTE

Note—Illustrated articles are denoted by an asterisk (*), book notices by a dagger (†). Titles are often abbreviated. They are indexed under their most important words, or, if no word be distinctive, under their first one (except "A," "The," etc.), or under some topical word not found in the title. Authors', geographical and other proper names are also used freely. Following is a list of the pages included in the several numbers of the volume, by date:

| | Page |
|---------------|-----------|
| July 6..... | 1-46 |
| July 13..... | 47-90 |
| July 20..... | 91-154 |
| July 27..... | 155-200 |
| Aug. 1..... | 201-248 |
| Aug. 8..... | 249-296 |
| Aug. 15..... | 297-340 |
| Aug. 22..... | 341-384 |
| Aug. 29..... | 385-426 |
| Sept. 5..... | 427-476 |
| Sept. 12..... | 477-522 |
| Sept. 19..... | 523-578 |
| Sept. 26..... | 579-624 |
| Oct. 3..... | 625-672 |
| Oct. 10..... | 673-720 |
| Oct. 17..... | 721-768 |
| Oct. 24..... | 769-806 |
| Oct. 31..... | 807-845 |
| Nov. 7..... | 846-888 |
| Nov. 14..... | 889-928 |
| Nov. 21..... | 929-970 |
| Nov. 28..... | 971-1014 |
| Dec. 5..... | 1015-1058 |
| Dec. 12..... | 1059-1102 |
| Dec. 19..... | 1103-1146 |
| Dec. 26..... | 1147-1188 |

A

| | Page |
|---|-------------------------------|
| Abjure the word not..... | 1041 |
| Accident prevention, Progress in..... | 483 |
| Accident, Significant electric locomotive..... | 273 |
| Accidents at Ellsworth collieries..... | 480 |
| Accidents, British mine..... | 1164 |
| Accidents—Buried under rock, yet lives, Graham..... | 403 |
| Accidents, Careful records reduce mine, Fay..... | 503 |
| Accidents, England..... | 269 |
| Accidents, Mine, Jarrett..... | 262 |
| Accidents, Missouri, (Note)..... | 335 |
| Accidents on American railroads..... | 562 |
| Accidents to eyes..... | 402 |
| Accounting, cost, in mine haulage, Discussion..... | 876, 1175 |
| Accounting of materials 417, Discussion..... | 755, 956 |
| Accusation that does not asperse..... | 1041 |
| Affelder, W. L. Hecla Co. gives service medal..... | 228 |
| Air-cylinder lubrication, (Inq.) 522, Discussion..... | 836, 1132 |
| Air, Excess, and heat efficiency..... | 585 |
| Air trap, effective..... | 343 |
| Alabama, coal production..... | 178, 663 |
| Alabama prices..... | 406, 866 |
| Alarm to show fan trouble, Decker..... | 972 |
| Alaska, coal mining, (Notes) 378, 571, 965, 1007..... | |
| Alaskan engineering, special commission..... | 785 |
| Allport, J. H. Prices bituminous coal, 685, 736..... | |
| Amenities in mine villages, Fuetter..... | 496 |
| Amer. Inst. of Mg. Engrs.—Colorado meeting 351, Paper..... | 685, 736 |
| Americanizing the foreigner, Discussion..... | 286, 415, 521, 614, 708, *873 |
| American vs. British ideals..... | 138 |
| Analysis—Character South Wales coals..... | 751 |
| Analysis of power consumption..... | 777 |
| Analyzed, Coal, Serviss..... | 1154 |
| Anthractite, breakers and washeries, Hazards and safeguards in, Glover..... | 901 |
| Anthractite costs, New schedule..... | 905 |
| Anthractite from lake docks..... | 275 |
| Anthractite fuel made by hand..... | 450 |
| Anthractite, Loss in storage, (Inq.)..... | 330 |
| Anthractite mine cave situation..... | 598 |
| Anthractite, Scraper mining of thin bed, Humphrey..... | 316 |
| Anthractite shipments increase..... | 601 |
| Anthractite, Sizes of fresh mined..... | 780 |
| Anthractite stripping..... | 57 |
| Anthractite coal stripping, Kennedy..... | 444 |
| Anthractite, To increase production..... | 997 |
| Appleton, J. Specializing in the mine..... | 109 |
| Apply your thought, Hodges..... | 49 |
| Armatures, Winding (Inq.)..... | 1137 |
| Ash in coal, Waste due to excessive..... | 692 |
| Ashley, M. Constructive practice in mining..... | 1135 |
| Ashmead, D. C. Determination of proper size of storage battery locomotives..... | 548 |
| Ashworth, J. Outbursts of gas in Crowsnest field *443, Explosive gases in coal..... | 990 |
| Auburn & Alton Coal Co.'s record run (Note)..... | 1007 |

| | Page |
|---|------|
| Austria able to meet its coal needs..... | 907 |
| Axle steel, Heat treatment, Discussion..... | 232 |
| Axle straightening..... | 535 |
| Axles, heat treated, Pearson..... | 315 |
| Axles, Mine-car, Lieberman..... | 219 |

B

| | Page |
|--|----------|
| Back to the mines, Strohm..... | 1103 |
| Bailey Coal Co.—Unique system of mining, Appleton and Somers..... | 109 |
| Bailey, J. W. Squaring crusher hammer ends..... | 1104 |
| Balance..... | 478 |
| Ball, J. L. Notes on electrical trouble 251, Freezing of shafts..... | 1175 |
| Barges, coal carried on, (Notes)..... | 291, 801 |
| Barges, Concrete coal, Springer..... | 628 |
| Barges, Govt. to operate coal..... | 133, 603 |
| Barnes, F. M. Effect of pneumatic reciprocating tools on nervous system..... | 510 |
| Barth, K. C. Preservative treatment of mine timbers..... | 1025 |
| Batteries, Spikeless, Lawrence..... | 769 |
| Bavaria coal shortage, (Note)..... | 1095 |
| Beck, L. M. Makeshift, extension cord..... | 48 |
| Bell, Alarm, on mine car, Stafford..... | 429 |
| Bell & Zoller Mfg. Co.—Zeigler mine, Harris..... | 252 |
| Bell, Who says miner can't ring, (Poster)..... | 626 |
| Belt, Replacing, Cohen..... | 626 |
| Bells, Putting on heavy..... | 1105 |
| Ressemer Coal & Coke Co.—Village layout, Miller..... | 130 |
| Bibliography, machine loading, Engel..... | 974 |
| Bier, J. A. Mine-car door..... | 141 |
| Binding timbers on a truck, Rice..... | 48 |
| Bituminous loaded at Lake Erie docks, 814, 987..... | |
| Bituminous prices fixed, Garnsey, Norris and Allport..... | 685 |
| Bituminous reduction, New England..... | 950 |
| Bituminous storage authorized, increased..... | 755 |
| Bituminous supplants anthracite..... | 225 |
| Bituminous under steam boilers..... | 266 |
| Bituminous used in 1917 and 1918..... | 360 |
| Bituminous, use of Illinois and Indiana..... | 865 |
| Blackdamp on pitches, (Inq.) 568, Discussion..... | 753 |
| Blacken bolt heads..... | 580 |
| Blacksmith shop, fireproof..... | 812 |
| Blagg, E. (Poster)..... | 29 |
| Blakeley, A. G. Routine determination specific gravity of coal, 1078, Erratum..... | 1165 |

BLASTING

| | Page |
|--|----------|
| —Blasting with lightning circuit, Pascoe..... | 342 |
| —Blasting ditch in mine, (Inq.) *1128, Discussion..... | 326, 415 |
| —Detonators, Handling electric, Discussion..... | 80 |
| —Explosives in mining, Permissible, Discussion..... | 518 |
| —Explosives, Safety in use of, La Motte..... | 490 |
| —Firing wet holes, Price..... | 48 |
| —Fuse tester, Lauther..... | 298 |
| —Liquid oxygen explosives..... | 540 |
| —Priming a cartridge, Discussion..... | 327, 321 |
| —Priming a cartridge..... | 1111 |
| —Shotfiring in mines, Discussion..... | 234, 327 |
| —Squibs vs. electric fuse (Inq.) 145, Discussion..... | 328 |
| Blue Diamond Coal Co.—Photo..... | 312 |
| Blue gem coal in Tenn. (Inq.) 80, Discussion..... | 189 |
| Boiler scale prevention..... | 1163 |
| Boiler tubes, (Photo)..... | 675 |
| Boilers—Coke stokers..... | 676 |
| Boilers, Fans and, Owens..... | 937 |
| Boilers, Raising two 350 hp. Scheble..... | 392 |
| Boilers, Steam, at coal mines (Inq.)..... | 1179 |
| Boilers—Waste gases for steam generation, Kershaw..... | 591 |
| Bonding and welding, Huber..... | 100 |
| Bonuses, Kentuckian advocates..... | 559, 561 |
| Book reviews..... | 623 |
| Bounce condition, Unusual, Watts..... | 1028 |
| Bow Dougherty's ghost..... | 642 |
| Bowker, G. The wagon mine a menace..... | 464 |
| Bowron, C. E. Purchase of mining machinery and supplies..... | 782 |
| Bradley, J. G. Sketch; portrait..... | 404 |
| Braley, B. Responsibility *354, The coal army *540, *Straight stuff..... | 625 |
| Brantley coal cutter..... | 596 |
| Brazil, Fuel problem..... | 1160 |
| Breathing apparatus, Lyons..... | 1019 |
| Brehm, C. G. Practical signal system on a mine slope..... | 479 |
| Brennan, W. B. Loading out coal with electric shovels..... | 1018 |
| Breweries coal cut to 50 per cent..... | 67 |
| Brick and concrete work, Novel..... | 780 |
| Bright, G. Electrical labor-saving devices..... | 1021 |
| —*116 Elimination of power losses..... | 1021 |
| Briquetting machine, Michaelson, Klebba..... | 596 |

| | Page |
|---|--------------------------------|
| British Columbia, Chemainus, drilling..... | 856 |
| British Columbia, Coal mining, Dunn..... | 55 |
| British Columbia, mining rights, (Notes)..... | 83 |
| British Columbia, New Mine at Cassidy's..... | *981 |
| British Columbia, production..... | 524, 525, 759, 839, 1051, 1094 |
| Brooks, L. W. Waterproof plunger grease 261..... | |
| Broughton, H. J. Coal, explosives, war..... | *158, *214, *258 |
| Brown, C. J. Reliable gears..... | 99 |
| Brown, J. F. K. Methods of operation 313, Reciprocating underground conveyor..... | *682 |
| Brown, W. A. Automatic caging saves labor..... | 257 |
| Buggy, J. Loading coal at the face..... | 416 |
| Bulletin for large coal users..... | 396 |
| Bullock, O. The mining situation 234, Hindrances to coal production 462, Loading coal at the face 658, Miner and his pleasure 796, Wagon mine a menace..... | |
| 834, Calculating a room switch..... | 1087 |
| Bumpus, W. (Photo)..... | 652 |

BUREAU OF MINES

| | Page |
|--|------|
| —Analyses of mine and mine car samples..... | 396 |
| —Coal-tar products..... | 19 |
| —Combustion, (Notes) 98, 167, 170, 343, 351, 404, 447, 547, 555, 590, 597, 681, 987..... | |
| —Report, yearly..... | 1125 |
| —Ventilation at firing time..... | 1000 |
| Buried under rock and yet lives, Graham..... | 403 |
| Burns, Treatment of, with wax..... | 989 |
| Burton, C. P. Stripping coal with a grader..... | 694 |
| Bush, D. D. resigns..... | 1039 |
| Bushings, driving, placing, extracting, (Photo)..... | *808 |
| Business as usual..... | 704 |
| Butler, W. H. Straightening bent rails..... | 722 |

C

| | Page |
|---|---|
| Caging saves labor, Automatic, Brown..... | 257 |
| Cahen, A. J. Crosshead removed by heating *428, Replacing a belt..... | *626 |
| Callan, W. H. Lubrication of air compressors..... | 211 |
| Callen, A. C. Determination of latitude and meridian..... | *188 |
| Calloway, R. J. Safety on electric hoist..... | 478 |
| Cambria Steel Co.—Hinckston Run mine, Winn..... | 647 |
| Cameron, W. H. (Photo)..... | 485 |
| Canada—Provincial fuel administrators..... | 880 |
| Canada, Provincial rights dispute, Dunn..... | 352 |
| Canada, western, coal supply, (Notes) 147, 617..... | |
| Canadian Western Fuel Co.—Cage accident 617, 729, Working thick coal, Stafford..... | *890 |
| Canal, New York Barge, coal transportation, Discussion..... | 835 |
| Canal route for Illinois coal..... | 73 |
| Canilvers, Steel, support headframe..... | *553 |
| Carbon Hill Coal Co.—Plant at Carbonado, Jarrett..... | *308 |
| Carbonization, coal, Meredith 129, (Note)..... | 965 |
| Carnegie Coal Co.—Marcus screen, Miller..... | *171 |
| Car chocks..... | *973, *1104 |
| Car, coal, 75 yrs. old, (Note)..... | 38 |
| Car hoist made of pipe fittings..... | 535 |
| Car shortage, (Notes) 37, 147, 276, 289, 377, 419, 468, 713, 799, 839, 880..... | |
| Car trips returning to mine, (Photo)..... | 312 |
| Cars, coal, more loaded this year..... | 745 |
| Cars, Cost of upkeep of mine, (Inq.) 918, Discussion..... | 1174 |
| Cars, Iron vs. wood mine, (Inq.) Husband 615, Discussion 793, 913, 960, 999, *1045, 1174..... | |
| Cars loaded, 1918..... | 994 |
| Cars, Railroads should deliver clean..... | 1172 |
| Cars, roller bearing mine, Porter..... | 1197 |
| Cars, transfer..... | *1122 |
| Carruth, C. W. Calculating a room switch..... | 1088 |
| Cartoons..... | 454, 496, 514, 552, 601, 604, 634, 636, 638, 640, 651, 700, 735, 787, 788, 1121 |
| Caves, mine, (Notes)..... | 83, 1141 |
| Cave, mine, situation..... | 598 |
| Cement gun in bituminous mine, Sloman..... | *1158 |
| Cement gun, Relined a mine shaft with..... | *400 |
| Cement work, Waterproofing, (Inq.)..... | 1092 |
| Central Penn. Coal Producers' Assn.—Record bulletin..... | *270 |
| Chain take-up, (Photo)..... | 156 |
| Chance, H. M. Acetylene and electric cap lamps..... | 1118 |
| Chance acetylene safety lamp..... | *824 |
| Chappelle, C. W. Advantages storage-battery locomotives *437, Discussion..... | 439 |
| Character South Wales coals..... | 751 |
| Charcoal prices..... | 68 |
| Chart of chimney losses..... | 268 |

| | |
|--|---------------------|
| Chart—Working force at six mines | Page 380 |
| Charts, accident | 402 |
| Chart—Performance of locomotives and miners | 726 |
| Cheering news from coal mines | 185 |
| Chesapeake & Ohio, statement 1014, Re- duces car quota. (Note) | 1053 |
| Chicago, Wilmington & Franklin Coal Co. —Orient mine. Harris #344, #932. —Largest day's output | 800 |
| Chilean coal industry | 1034 |
| Chips from eye, aid in removing. (Photo) .. | 156 |
| Chisel, The cold. Lucas. | *730 |
| Chocks, Mine car. | *973, *1104 |
| Clamp, detachable | *1017 |
| Cleanness Corporation and personal | 831 |
| Clefield Bituminous Coal Corp.—Keeping labs on absentees | 602 |
| Coal Age—Index 113, 255. Ideas and Sug- gestions 115. Safety number | 324 |
| Coal allotments by U. S. Fuel Administra- tion. (Note) | 76 |
| Coal and coke, U. S., 1917 | 647, 745 |
| Coal are you burning? What | 954 |
| Coal army. Braley | *540 |
| Coal deposits of world | 909 |
| Coal, explosives, war. Broughton | 158 |
| Coal, dirty. (Poster) | *214, *258 |
| Coal handling plant, Sewalls Point, Va. | *1122 |
| Coal industry, strong position | 971 |
| Coal industry's part in war. Cornwell | 695 |
| Coal, Liberty | 931 |
| Coal may oust gasoline | 1172 |
| Coal, Mexico. (Notes) | 419 |
| Coal mining and man power. Pocock | 350 |
| Coal Mfr. Inst. of Amer.—Program 948. Papers | *1021, 1025, *1060, |
| *1110. Meeting | 1080 |
| Coal, poor, mines closed down | 865 |
| Coal problem under war conditions. Stoek .. | 393 |
| Coal recovery in Illinois | 184 |
| Coal-tar products | 19 |
| Coal, Where the war mine is concerned .. | 170 |
| Coffin, F. H. Carbide vs. electric mine lamps | 30 |
| COKE | |
| —Breeze, coke. (Notes) | 147 |
| —Byproduct coking in Great Britain. Ker- shaw | 853, *898, *941 |
| —Byproduct coking practice. Sperr | 1068, *1114, *1156 |
| —Byproductless ovens waste coal, Where. | 174 |
| —Byproducts, Recovery. Meredith | 60 |
| —Coke company to make large refund. | 557 |
| —Coke making in New South Wales | 778 |
| —Glazier, R. C., coke inspector | 557 |
| —Innovation in coke industry Gans. | 256 |
| —Must have larger coke output | 695 |
| —Ovens idle 15 yrs, resume. (Note) | 291 |
| —Ovens, 226, 273, 513, 573, 744, 1051 .. | 1051 |
| —Record production. (Note) | 617 |
| —Screenings, coke, salvaging discontinued .. | 524 |
| —Shipments to be inspected. (Note) | 524 |
| —Tables of percentages and volatilization .. | 1034 |
| Cold weather instrument work | 790 |
| Cole, H. E. Handling mine water | *264 |
| Colorado, coal production, 1918. (Note) .. | 735 |
| Colorado Fuel & Iron Co.—War contribu- tion. (Note) 463. Girls' camp at Prim- ero #468. Community work | 873 |
| Colorado, safety | 1178 |
| Combination tool, Useful | *931 |
| Combustion. (Notes) 98, 167, 170, 343, 19 351, 404, 447, 547, 555, 590, 597, 681, 98 | |
| Compensation. (Notes) 570, 662, 799, 963 .. | 1006, 1181 |
| Compressors, air. (Photos) | 165 |
| Compressor, air, Lubrication of. Callan .. | 211 |
| Compressor at coal mine | 161 |
| Compressor, Potable motor-driven | *161 |
| Commutation service, miners want | 367 |
| Commutators, Undercutting or slotting. Hus- kinson | 298 |
| Concrete coal barges. Springer | *628 |
| Concrete, Effect of salt on reinforced. | 991 |
| Concrete foundations. Springer | *204 |
| Concrete houses, investigation | 779 |
| Concrete, Reinforced, pit props. Meredith .. | 362 |
| Concrete work. Novel brick and | *780 |
| Concreting work in cold weather | 1117 |
| Condenser, acid resisting | *166 |
| Conemaugh Smokeless Coal Co.'s plant. Martin | *19 |
| Connor, H. H. Standardization of first-aid equipment | 728 |
| Connellsville Basin Coke Co. (Photo) | 134 |
| Conservation of miners. Herrick | *162 |
| Conservation section of R. R. administration .. | 363 |
| Conserve mine material | 453 |
| Conserving coal | 134 |
| Consolidation Coal Co. | 65, *1148 |
| Constructive practice in mining. Discussion .. | 1135 |
| Consumers' Mfg. Co. development | 684 |
| Consumption, bituminous | 170, 360 |
| Content between the head and hand | 1085 |
| Contract fee covenant | 406 |
| Contract, mine, longer period | 275 |
| Conversation between two cars of coal | *126 |
| Conveyor from mine to tippie | *129 |
| Conveyor, Reciprocating under ground. Brown | *682 |
| Conveyor, Simple face. Davis #92. Dis- cussion | 371, 611 |
| Conveyors at face. Discussion | 142, *371 |
| Conveyors replace common labor | *743 |
| Copper, world's production 1917 | 684 |
| Cord, Makeshift extension. Beck | *48 |
| Cornell, J. J. Coal industry's part in the war | 695 |
| Corporal in every squad of eight | 608 |
| Corporational and personal cleanliness | 831 |
| Cost sheet A uniform | 545 |

| | | |
|--|-----------|----------|
| Cost upkeep of mine cars. (Inq.) | 918 | Page |
| Discussion | | 1174 |
| Costs—Development of mine stock | | 1076 |
| Costs. New schedule of anthracite | | 905 |
| Cotter pin and nail make expansion bolt | | 534 |
| Country bank, Correct sphere | | 73 |
| Cox, J. T. Iron vs. wood mine cars | | 793 |
| Coxe traveling grate | | *676 |
| Crankpin, Removing tight | Lucas | *428 |
| Credit of the coal man | Taylor | 267 |
| Creveling, C. J. Cause of brittleness in mine rails | | *237 |
| Crocker, W. Attaching fuse to primers | | *203 |
| Croft, T. Travel of electric current | 567 | |
| Direct, and alternating current circuits | | *770 |
| Crownest field, Outbursts of gas | Ash | |
| worth | | *443 |
| Curve, Suggestion for a sharp | Stafford | *722 |
| CUTTER, COAL. See also "Drilling." and "Working." | | |
| —Care of coal cutters. Discussion | | 75 |
| —Shortwall cutting machine | | *120 |
| D | | |
| Danger in smoke | | *509 |
| Davis, H. G. Simple face conveyor | | *92 |
| Dawley, M. C. Americanizing the foreigner | | *873 |
| Dealers fail to file weekly reports | | 178 |
| Decker, W. F. Alarm to show fan trouble | | *872 |
| Deigans, W. E. Sketch; portrait | | 1075 |
| Delaware, Luskawanna & Western—Methane testing | *988 | |
| Ayondale fire | | 1052 |
| De Ligny, E. B. Zoning system of coal shipments | | 1132 |
| Demands exceed estimates | | 320 |
| De Mayo bunkering machines | | 1027 |
| Delaware & Hudson Coal Co.—Stripping operation | *57 | |
| Face conveyor | Davis | *92 |
| Depot, fuel, at Curtis Bay, Md. (Note) | | 761 |
| Derrailing device, Simple | Powell | *931 |
| Derrailments are potential casualties | | 517 |
| Development period of a mine stock | | 1076 |
| Dewatering pits for washed coal | | *1072 |
| Dickinson, W. Sealing on fire on intake | | |
| *187, Coal conveyor at face | | *450 |
| Dinner pail cooler | | *450 |
| Discrimination, unjust, in coal mining | | 698 |
| Distillation Low temperature, of Ill. and Ind. coals | Traer | 815 |
| Dock loadings. (Notes) 149, 195, 379, 619, 987, 1053, 1095, 1141 | | |
| Dock—U. C. coaling plant. (Note) | | 39 |
| Door for lowering mine timbers | | *386 |
| Door, American mine | | 1159 |
| Door, Mine-car. Discussion | | *75, 140 |
| Down on his luck | | 985 |
| Drilling, rier. (Note) | | 1004 |
| Drilling device | Lucas | *891 |
| Drilling, Diamond | | 856 |
| Drilling, Herrick | | *162 |
| Drillings, Grit guard for overhead | Lucas | *299 |
| Drilling with the vise | | *1105 |
| Drills, Little Giant | | *1166 |
| Drink too much, Do mine workers | | 458 |
| Drivers of yesterday and today | | 369 |
| Dumper, double car | | *1122 |
| Dump pivot, Finding. Price | | *202 |
| Dunn, R. Coal mining in British Columbia | | |
| 55. Developments of Granby Cons. Mfg. & Sm. Co. 224. Provincial rights dispute in Canada | | |
| Duplex instruments | | *352 |
| Duty and destiny | | *397 |
| | | 429 |
| E | | |
| Economic losses arising from high ash coal | | 830 |
| Education and labor unrest | | 458 |
| Education—financial and social barometer | | |
| Virgin | | 446 |
| Effect pneumatic reciprocating tools | | |
| Barnes | | 510 |
| Effect salt on reinforced concrete | | 991 |
| Efficiency, Greater or lower wages | | 1042 |
| Efficiency in coal mining | | 983 |
| Efficiency, Increasing coal mine | Stuart | |
| *724, *773, *820, *857, *903 | | |
| Efficiency in firebossing. Discussion | | 1133 |
| ELECTRICITY. See also "Haulage," "Hoisting," "Power," "Locomotive," "Lamp." | | |
| —Alternating-current motor trouble | | 931 |
| —Armatures, Winding (inq.) | | 1137 |
| —"Bugs," Chasing elusive | Huskinson | 250 |
| —Central station power | Huskinson | *14 |
| —Circuit breakers, Automatic | | *349 |
| —Direct and alternating current circuits | | |
| Croft | | *770 |
| —Direct-current armature trouble | Huskinson | 823 |
| —Direct-current locomotive armatures | Re | |
| winding and testing | Huskinson | *541 |
| —Distribution system of Lehigh C. & N. Co. | | *850 |
| —Duplex instruments | | *597 |
| —Electrical labor-saving devices | Bright | *116 |
| —Electrification not a war necessity | | 562 |
| —Headlights, electric | Mackall | *1060 |
| —Hoist, Safety on electric | Calloway | *478 |
| —Increasing coal mine efficiency | Stuart | |
| *820, *857 | | |
| —Induction motor pedestals | | *862 |
| —Interlocked car haul and feeder | Hines | 300 |
| —Lighting circuit, Blasting with | Pascoe | *342 |
| —Motor, Reversing an electric (inq.) | | *878 |
| Discussion | | 1044 |
| —Motor stop, Water indicator and | Huskinson | *358 |

| | Page |
|---|----------------|
| ELECTRICITY—Continued | |
| —Progress of electricity in coal mining..... | 892 |
| —Huskinson..... | 892 |
| —Random notes on electrical trouble..... | 891 |
| —Remote-control starters..... | 753 |
| —Resistance terminal connections..... | 581 |
| —Resistance units for current regulation..... | 862 |
| —Signal to indicate discontinuance of load..... | 723 |
| —Storage battery locomotives..... | Chappelle |
| —437. Discussion..... | 439 |
| —Switch, New type of line..... | 863 |
| —Switching cabinet Steel..... | 742 |
| —Switching unit, Wall-type..... | 863 |
| —Synchronous substation..... | Hines.....434 |
| —Travel of electric current (inq.) 35. Dis- | |
| —cussion.....189, 232, 284, 567, 835 | |
| —Truck, switchboard units..... | 7166 |
| Elkins Coal & Coke Co.—Fire..... | 1140 |
| Ellsworth Collieries Co.—Accident tables | |
| and charts..... | 48 |
| Elmore, G. H. Emergency and clean coal..... | 122 |
| Emergency and clean coal..... | Elmore.....122 |
| Enamel insulation from wire, Removing..... | 930 |
| Enameled resistance units..... | 862 |
| Engel, G. W. Methods and appliances for | |
| loading coal..... | 974 |
| Engine—Crosshead removed by heating..... | 428 |
| Cohen..... | 428 |
| Engineering practice for 1917..... | 1224 |
| Engines, hoisting, Direct connected and | |
| geared (inq.)..... | 1092 |
| English, T. Sealing off fire on intake..... | 236 |
| Enlistment of Shorty McGee, Fletcher..... | 807 |
| Equipment, Improved coal, Hosovo (inq.)..... | 465 |
| Equipment, Mining, Discussion 140, 372, | |
|913, 959 | |
| Equipment, mines to get essential..... | 319 |
| Erico portable bonding and welding apparat- | |
| us, Huber..... | 100 |
| Estimating power in haulage (inq.)..... | 615 |
| Discussion..... | 833 |
| Evans, C. Scraps, mining in low seams..... | 611 |
| Evans, G. W., Alaskan Eng. Comm. Note..... | 714 |
| EXAMINATION QUESTIONS | |
| —British Columbia, First class—Gases, | |
| ventilation..... | 36 |
| —Hoisting engineers—Boilers, signaling, | |
| etc., 418; engines, rope fastening, | |
| boiler..... | 1138 |
| —Kans. firebosses, safety lamps, gases, | |
| 523; duties of, safety entering mine | |
| after explosion, fire..... | 569 |
| —Mine examiners—Duties of, ventilation, | |
| gases, examination of mine, 1050; | |
| ventilation, doors, brattices, overcasts, | |
| splitting, instruments..... | 1093 |
| —Mine foremen—Ventilation, refuge holes, | |
| explosives, accidents, gases, 146; | |
| squeeze, safety, timbering, safety | |
| lamps, haulage..... | 192 |
| —Misc.—Anemometer readings, ventilation, | |
| electricity..... | 798 |
| —Misc.—Boilers, steam engines, hoisting..... | 879 |
| —Misc.—Hoisting rope, Ventilation, elec- | |
| tricity, engines 838, Correction..... | 1050 |
| —Misc.—Pumping, gases, ventilation..... | 1180 |
| —Misc.—Ventilation, water gage, labor, | |
| mine fires..... | 919 |
| —Misc.—Ventilation, priming, piping, boiler | |
| fittings, haulage, gases..... | 1005 |
| —Misc.—Ventilation, mine car, drainage, | |
| working, gas..... | 81 |
| —Misc.—Working, hoisting, boilers, mine | |
| doors, ventilation, blasting, explosives..... | 466 |
| —Pittsburg, Kans., mine foremen—Gases, | |
| roof falls, ventilation, working, entry | |
| yardage, barometer, fans..... | 376 |
| —Shamokin, Penn., mine foremen—Aban- | |
| doned mine, squeeze, water gage, tim- | |
| bering, explosion, anemometer, ven- | |
| tilation..... | 331 |
| —West Va. mine foremen and firebosses | |
| —Ventilation, mining law, 616; air | |
| measurements, blasting, uses of ane- | |
| mometer water gage, thermometer and | |
| barometer, supplies, miners' qualifica- | |
| tions and tools, 661; safety laws, | |
| safety mine examination, 712; ventila- | |
| tion, open lights, safety lamps, ex- | |
| plosions, duties of fireboss..... | 757 |
| —Wilkes-Barre mine foremen—Accidents, | |
| safety lamps, maps, safety, timbering | |
| | 238 |
| Exemption for coal miners, Discussion..... | 709 |
| Exline, R. Waste of coal..... | 1176 |
| EXPLOSION. See also "Dust," "Gases, | |
| Mine," "Ventilation," | |
| —Boiler explosions (inq.)..... | 1179 |
| Explosives. See also "Blasting," | |
| Explosives, Coal, war, Broughton..... | 158 |
| Explosives..... | 214 |
| Explosives, Conservation, Jones..... | 1110 |
| Explosives in mining, Permissible Dis- | |
| cussion..... | 518 |
| Explosives, Liquid oxygen..... | 540 |
| Explosives, Safety in use of, La Motte..... | 490 |
| Exports. See "Trade," | |
| Eye hazard in coal mining..... | 402 |
| F | |
| Face coal shoveler and loader (inq.)..... | 711 |
| Fairmont, W. Va., operators. (Photo)..... | 229 |
| Fan, See "Ventilation," | |
| Fannhouse, Lehigh Valley Coal Co..... | 117 |
| Fannington opposed bonuses 322, Sidesteps | |
| prohibition..... | 408 |
| Fastering, Old man, Lucas..... | 387 |
| Fatalities. (Notes)..... | 840 |
| Fay, A. H. Careful records reduce mine | |
| accidents..... | 503 |

| | Page |
|---|---------------------------|
| Federal Trade Comm.—Report, 21; arraignment of, 513; To investigate cost of anthracite. (Note)..... | 524 |
| Feeder, Electrically interlocked car-haul and Hines..... | *300 |
| Fighting publicity with publicity..... | 953 |
| Firebossing, Efficiency in. Discussion..... | 1133 |
| Fire pails..... | 103 |
| Fire on intake, Sealing off. Discussion *33, 79, 143, *187, 236, 285, 520..... | 492 |
| Fireco, W. Va..... | 492 |
| First-aid methods, Standardization, Connor..... | 728 |
| First aid—Resuscitated after long treatment..... | 497 |
| First aid to the uninjured. Discussion..... | 283 |
| Fisher, V. Winning the war with coal..... | 986 |
| Flag, Our international..... | 1130 |
| Fletcher, G. Enlistment of Shorty McGee..... | *807 |
| Flexner, H. Our great-hearted coal miners..... | *498 |
| Ford handles mine cars..... | *386 |
| Forecast..... | 996 |
| Foreign fuel commission..... | 785 |
| Foreigners expect hardships..... | 26 |
| Foremen, Selecting mine. Discussion..... | 76 |
| Foundation, Concrete, Springer..... | *204 |
| Franklin Coal & Coke Co. Explosion. (Note)..... | 714 |
| Franklin Inst.—Paper..... | 1068, *1114, *1156 |
| Freezing of shaft in winter (inq.)..... | 1004 |
| Discussion..... | *1134, 1175 |
| Freight rates. (Notes)..... | 573, 1175 |
| France, coal..... | 745, 900, 910, 1039, 1182 |
| Frog, Movable point..... | 2 |
| Frogs and latches (inq.)..... | 1179 |
| Fuel Administration will continue, 993; (Photo)..... | 1024 |
| Fuettler, C. J. Amenities in mine villages..... | 496 |
| Fuse, Squibs vs. electric (inq.) 145. Discussion..... | 382 |
| Fuse tester, Lauther..... | 298 |
| Fuse to primers, Attaching, Crocker..... | *203 |

G

| | |
|--|----------|
| Gans, J. L. Innovation in coke industry..... | 256 |
| Garcia, J. A. Sketch; portrait..... | 360 |
| Garfield letter to Conciliation Board..... | 367 |
| Garmsay, C. Prices bituminous coal..... | 685, 736 |
| Gases, Molecular consistency..... | 401 |
| Gas coal in northwest..... | 134 |
| Gasification of coal, Meredith..... | 982 |
| Gas, coal, Meredith..... | 1071 |
| Gas, power, Advantages of using, Meredith..... | 689 |
| Gas, Power of coals and, Owens..... | 313 |
| Gas wells, Abandoned..... | 1113 |

GASES, MINE

| | |
|--|-------------|
| —Blackdamp on pitches (inq.) 568. Discussion..... | 753 |
| —Diffusion of gases (inq.)..... | 145 |
| —Explosive gases in coal, Ashworth..... | 993 |
| —Methane as a fuel, Williams..... | 988 |
| —Outbursts of gas in Crowsnest field, Ashworth..... | 443 |
| —Testing gas in mines, Gray..... | *217 |
| Gawthrop, L. B. Nerves of the mine..... | *108 |
| Gave their fourth to Red Cross..... | *324 |
| Gay Coal & Coke Co.—Semi-monthly bulletin..... | 740 |
| Gear puller (Photo)..... | 157 |
| Gears, Reliable, Brown..... | 99 |
| Gelston, J. S. Mine-rescue work..... | 32 |
| Generation of electrical energy..... | 697 |
| Geological Survey—Peat deposits, 115, 226, Bituminous consumption, 170; Peat as fuel, 734; Coal and coke, 1917, 745; Minerals produced 1917, 1168; Lake shipments..... | 1169 |
| Geology—Bounce condition, Watts..... | *1028 |
| German pre-war and present coal prices..... | 642 |
| Getting a bit of their own back..... | 949 |
| Gibbons' Cardinal, letter to Dr. Garfield..... | 451 |
| Gibbs apparatus..... | *1019, 1051 |
| Give the foreigners your hand. (Poster)..... | 1129 |
| Glover, D. K. Hazards and safeguards in anthracite breakers..... | 901 |
| Gondolas, steel, used as armored cars. (Photo)..... | 315 |
| Goodnow, H. Quickly adjusted jack-prop..... | *342 |
| Good security. (Cartoon)..... | 601 |
| Government control, Continuance and modification, Peabody..... | 1112 |
| Government runs coal mines..... | 784 |
| Grade Estimating percentage. (inq.)..... | 756 |
| Discussion..... | 959 |
| Graham, E. H. Buried under rock and yet lives..... | 403 |
| Graham, W. J. Travel of electric current..... | 1044 |
| Granby Cons. Mfg. & Sm. Co.—Developments..... | 224, *981 |
| Graphite..... | 111, 1133 |
| Gray, H. E. Testing for gas in mines..... | 282 |
| Wagon mine a menace..... | 674 |
| Grease cup (Photo)..... | 930 |
| Grease cup filler, Schwartz..... | 261 |
| Grease, Waterproof plunger, Brooks..... | 564 |
| Greaves, J. A. Man power and longwall mining..... | 1165 |
| Greece, Lignite..... | *299 |
| Grit guard for overhead drillings, Lucas..... | 649 |
| Gulliver, J., high daily production..... | |

H

| | |
|---|----------------------------------|
| Hacksaw and cross peen hammer..... | *931 |
| Hainley, S. D. Hindrances to coal production..... | 1004, Emergency pump repair..... |
| Hale, W. T. Mining equipment..... | 959 |
| Hall, F. Interpreting mining laws..... | 77 |

| | |
|---|-------|
| Hall, R. D. Labor situation, 23, 69, 135, 180, 227, 276, 321, 365, 407, 455, 511, 558, 605, 650, 701, 746, 787, 828, 867, 908, 951, 995, 1040, 1127, 1170. Intemperance hampers production 297, Patriotic duty of buyers..... | 929 |
| Hammer, Blow struck by steam. (inq.)..... | 1179 |
| Hammer ends, Squaring crusher, Bailey..... | *1104 |
| Hampsch, O. H. Tabulation of entry progress 663, Tabulating and computing latitude and departure notes..... | *768 |
| Hampton Roads, loading at..... | 1027 |
| Hand of all for the help of all..... | 324 |
| Handling mine water, Cole..... | 204 |
| Handle, split, lashing for. (Photo)..... | 59 |
| Harewood mine, new..... | 638 |
| Harrington, D. Mine safety in wartime..... | |
| Harris, G. W. New plant in Franklin County, Ill. *252, Orient mine *344, Longwall mining at La Salle, Ill. *389, Machine mining at La Salle, Ill. *536, Peabody coal development *810, Consolidation Coal Co..... | *1148 |
| Harris, W. Sealing off fire on intake..... | 529 |

| | |
|--|-----------------------|
| HAULAGE. See also "Hoisting," "Power," "Electricity," "Locomotive," etc. | |
| —Bell, alarm, on mine car, Stafford..... | *429 |
| —Capacity storage battery locomotives..... | 660 |
| —Cost accounting in mine haulage. Discussion..... | 876, 1175 |
| —Drag slide, Hale..... | 959 |
| —Efficient haulage methods, Teas..... | *106 |
| —Electrically interlocked car haul and feeder, Hines..... | *300 |
| —Electric mine haulage. Discussion..... | 233 |
| —Ford handles mine cars..... | *386 |
| —Haulage and loading equipment, Mackie..... | *130 |
| —Internal-combustion haulage, Teas..... | *106 |
| —Locomotives, Advantages of storage battery, Chappelle..... | *437, Discussion..... |
| —Locomotives, Hauling capacity. Discussion..... | 958 |
| —Motor, mine, Wheeler..... | *1167 |
| —Power, Estimating, in haulage. (inq.) 615, Discussion..... | 833 |
| —Rope haulage, Electric drive for. (inq.)..... | 191 |
| —Shallow drifts, haulage in, Kirchgasser..... | *202 |
| —Signal system on mine slope, Brehm..... | *479 |
| —Switch, automatic, Ramsay..... | *580 |
| —Switch, Automatic tippie, Price..... | *250 |
| —Switch, Calculating a room. (inq.) 756, Discussion..... | 1087 |
| —Switch calculations. (inq.)..... | *961 |
| —Wire-rope formulas. (inq.) Plant..... | 1137 |

| | |
|--|----------|
| Hazard coal field, Sherwin..... | *1031 |
| Hazards and safeguards in anthracite breakers and washeries, Glover..... | 901 |
| Headframe, Connellsville Basin Coke Co. (Photo)..... | 134 |
| Headframe, Steel cantilevers support..... | 553 |
| Headlights, Mackall..... | *1060 |
| Health, Relation of operator to..... | 871 |
| Heat treatment, Advantages of, Pearson..... | 315 |
| He is writing to you. (Poster)..... | 460 |
| Help to find this man..... | 320 |
| Herring, C. Brittleness in mine rails..... | 237 |
| Herrick, R. L. Conservation of miners by use of mechanical equipment..... | *162 |
| Herrman, F. E. Sketch; portrait..... | 26 |
| Heroes of the pick, Strohman..... | *427 |
| He who saves serves..... | 72 |
| Hickey for bending pipe or conduit..... | *626 |
| Hicks, F. B. The mining situation 144, Sealing off fire on intake..... | 188 |
| High lights in coal situation. (Cartoon)..... | 454, 700 |
| Hinckston Run mine, Winn..... | 617 |
| Hindrances to coal production. Discussion, 462, 612, 710, 795, 873, 1003, 1044, 1087..... | |
| Hines, R. P. Motor-driven shaft-hoist *50, Electrically interlocked car haul and feeder *300, Underground synchronous substations..... | *434 |
| Hodges, L. M. Apply your thought..... | 49 |
| Hogarth, T. Loading coal at the face 282, The miner and his pleasure 329, Justice to the miner 414, Man power and long-wall mining 794, Hindrances to coal production..... | 795 |

| | |
|--|----------|
| HOISTING. See also "Haulage," "Power," "Electricity," "Safety," "Rope," etc. | |
| —Air hoist, Homemade..... | *723 |
| —Cage, Olsen..... | 254 |
| —Electric hoist, Safety on, Calloway..... | *478 |
| —Electric hoists, small..... | *597 |
| —Engines, hoisting, Direct connected and geared. (inq.)..... | 1092 |
| —Four-rope hoisting system..... | 1181 |
| —Induction and direct current motors..... | *118 |
| —Little Tugger hoists. (Photo)..... | 163 |
| —Peabody Coal Co..... | 813 |
| —Rope break from sudden jerk? Did..... | 729 |
| —Ropes, Life and care..... | 11 |
| —Shaft-hoist installation, Motor driven..... | 50 |
| —Hines..... | 1049 |
| —Shaft problems. (inq.)..... | *120 |
| —Single-drum room hoist..... | *932 |
| —Surface plant at Orient mine..... | 827, 865 |
| Holland to get American coal..... | *450 |
| Homemade fuel..... | 1149 |
| Homes, miners'..... | 333 |
| Horatio mine reopened. (Note)..... | 465 |
| Hosovo, G. Improved coal equipment..... | 871 |
| House scarcity..... | 779 |
| Houses, concrete, investigation..... | 7 |
| Houses, Madison Coal Corp..... | 193 |
| Housing in the mining regions 137, (Notes)..... | 913 |
| Howard, F. K. Mining equipment..... | *747 |
| Howard, J. loads 50 tons in one day..... | 100 |
| Huber, W. E. Bonding and welding apparatus..... | 233 |
| Hughes, T. O. Electric mine haulage..... | |

| | |
|--|------|
| Humphrey, E. P. Scraper mining of thin bed anthracite..... | *316 |
| Hun propaganda, Parsons..... | 673 |
| Husband, G. Iron vs. wood mine cars 615, Portable lighting set, *722, Direct-current armature trouble 823, Progress of electricity in coal mining..... | *892 |
| Huskinson, F. Changing from isolated to central power, *14, Chasing elusive "bugs" out of commutator 250, Under-cutting or slotting commutators 298, Water indicator and motor stop *358, Rewinding and testing direct-current locomotive armatures..... | *541 |
| Hutchings, N. Saving materials..... | 3 |
| Hyde, I. Salvaging buried rails..... | 626 |
| Hydraulic press..... | 534 |

I

| | |
|--|----------|
| Illinois, central, Safety-first coal mine..... | *4 |
| Illinois, Coal recovery in..... | 181 |
| Illinois, Decatur, storing coal. (Note)..... | 241 |
| Illinois mining, Improvement in..... | 137 |
| Illinois Mfg. Inst.—Paper 393, *437, Discussion..... | 439 |
| Illinois production. (Notes)..... | 378, 618 |
| Illinois United Mine Workers..... | 952 |
| Importance of spreading safety work..... | 790 |
| Imports..... | 604 |
| Indiana and Illinois coal for Michigan..... | 513 |
| Indiana, coal production. (Notes) 28, 147, 335, 573..... | |
| Indiana, distribution of anthracite. (Notes)..... | 421 |
| Indiana prices. (Notes)..... | 195 |
| Influenza leaves, Germs linger after..... | 130 |
| Ink bottles, Tip for, Lucas..... | (93) |
| Iniquitous custom..... | 482 |
| Injured, May, employees select doctor?..... | 177 |
| Institution of Min. Engrs.—Paper..... | *821 |
| Instruction station..... | 1125 |
| Insurance. (Notes)..... | 83, 662 |
| Intemperance hampers production, Hall 297, Discussion..... | 463 |
| Intemperance. (Notes)..... | 276 |
| Intemperance men cause tonnage losses..... | *302 |
| Interpretation, The, Strohman..... | *155 |
| Invisible, Strohman..... | 1015 |
| Iron and wood out of coal, Keep..... | 1131 |
| Iron vs. wood mine cars. (inq.) Husband 615, Discussion 793, 913, 960, 999, *1045, 1174..... | |
| Is it the miner or the system?..... | 768 |
| Isolated plant vs. purchased power..... | 1173 |

J

| | |
|--|-------|
| Jamison Coal & Coke Co. (Photo)..... | 448 |
| Jaross, S. Device for bending small pipe..... | *251 |
| Jarrett, F. G. Mine accidents 262, Coal mining in Carbonado, Wash..... | *308 |
| Jarvis, E. Freezing of shaft in winter..... | 1134 |
| Jaxon, G. S. Valley Camp Coal Co.'s tippie at Parnassus, Penn. *582, Williams Pocahontas Coal Co..... | *1106 |
| Jemison, J. W. Emergency ventilator..... | *627 |
| Jewell Ridge Coal Corp.—Gave their fourth to Red Cross..... | *325 |
| Jo Brown's opinion..... | 1 |
| John and the ton of rock..... | *533 |
| Joints, Slush line..... | 428 |
| Jones, G. made brigadier-general..... | 509 |
| Jones, O. Interpreting mining laws, 33, Sealing off fire on intake 79, Ventilating gassy slope mine..... | 372 |
| Jones, S. C. Conservation of explosives..... | *1110 |
| Jones, T. Sealing off fire on intake..... | 143 |
| Joyce, W. E. Can output be increased scientifically? 356, Wage adjustment..... | 752 |
| Joyful, That we may continue..... | 1059 |
| Just enough is never enough..... | 1086 |
| Justice to the miner. Discussion, 413, 753, 916, 1046, 1091..... | |

K

| | |
|--|------------------|
| Kansas school for mine workers..... | *28 |
| Keely, J. After the war..... | 868 |
| Keep step. (Poster)..... | 998 |
| Kehley Run Coll. fire. (Note)..... | 1094 |
| Kennedy for union president..... | 366 |
| Kentucky prices fixed..... | 406 |
| Kentucky production, fiscal year. (Note) 83, Perry county, 1918..... | 241 |
| Kentucky, Red Cross in..... | 498 |
| Kentucky River Power Corp. (Photo)..... | 1032 |
| Kenvin, J. Accounting of materials..... | *754, 1175 |
| Kershaw, J. B. C. Waste gases for steam generation 591, Byproduct coking in Great Britain..... | *853, *898, *941 |
| Key pulling devices. (Photo)..... | 808 |
| Kinks for use around mine..... | *157 |
| Kirchgasser, G. H. Speeding up mining in shallow drifts..... | *202 |
| Klebb, L. Michaelson briquetting machine..... | *596 |
| Kneeland, F. H. Partners with the Kaiser 579, Annual meeting of Coal Mfg. Inst. of Amer..... | 1080 |

L

| | |
|---|------|
| LABOR | |
| —Agreement, Fairmont, W. Va..... | 1170 |
| —Agreement, New River, W. Va..... | 1170 |
| —Americanizing the foreigner. Discussion 286, 415, 521, 614, 708, *873, 1089..... | |
| —American vs. British ideals..... | 138 |
| —Anthracite miners want bituminous wage rates..... | 407 |
| —Asiatic labor for Canadian coal mines..... | 512 |

| | |
|--|-----------------------------|
| LABOR—Continued | Page |
| —Awards, National, for steady work..... | 650 |
| —Bonus nuisance to be ended..... | 278, 365 |
| —Bureau of labor..... | 227 |
| —Canadian coal miners must work or fight..... | 182 |
| —Corporal in every squad of eight..... | 608 |
| —Crowder, Gen., drafting miners..... | 276 |
| —Drivers of yesterday and today..... | 369 |
| —Education and labor unrest..... | 458 |
| —Education, Virgin..... | 447 |
| —Effect of war on labor..... | 1173 |
| —Efficiency in fireblossing. Discussion..... | 1133 |
| —Employment service, U. S..... | 25 |
| —Exemption of coal miners..... Discussion..... | 709 |
| —Exemption of W. Va. miners..... | 229 |
| —Female labor..... | 23, 25 |
| —Foreign-born miners, Loyalty of. Dis- cussion..... | 189 |
| —Funerals, Operators will pay for..... | 181 |
| —Hecia Co. gives service medal. Affelder..... | *228 |
| —Increase demanded in northern anthracite fields..... | 322 |
| —Intemperate men cause tonnage losses..... | *302 |
| —Investigation board..... | 181 |
| —Is the miner a system..... | 768 |
| —Justice to the miner..... Discussion..... | 419, 1031 |
| —Labor-adjusting agencies, statement..... | 829 |
| —Labor will remain under Fuel Admin- istrator's jurisdiction..... | 228 |
| —Lord, J., charge of labor for mines..... | 277 |
| —Man power and longwall mining. Dis- cussion..... | *564, 794 |
| —Man power, Coal mining and. Pocock, 350, Discussion..... | *564 |
| —Marine workers. (Note)..... | 1183 |
| —Mexicans in anthracite field. (Note)..... | 378 |
| —Mine foreman, get in touch with your..... | 185 |
| —Miner and his pleasure..... Discussion..... | 329, |
| 463, 613, 657, 796, 834 | |
| —Miner as a casual worker..... | 368 |
| —Miners oppose ending of apprenticeship..... | 608 |
| —Miners work Sundays to offset influenza loss..... | 826 |
| —Missouri miners promise future strike..... | 512 |
| —Monthly men want increase..... | 788 |
| —Nationalities in Clearfield district..... | 409 |
| —Number anthracite miners..... | 1127 |
| —Operator's attitude to workman..... | 756 |
| —Operators and men to work together. Neale..... | 229 |
| —Perplexities of mine foremen. Discussion..... | 229 |
| 656, 793, 1002, 1047, 1176 | |
| —Placement of army and navy men 1126, 1130 | |
| —Prohibition and labor in West Virginia..... | 181 |
| —Rimersburg works for Red Cross Labor Day..... | 407 |
| —Record of Williamson miners' time..... | 408 |
| —Scale for deadwork..... | 1128 |
| —Seeing the boss wastes time and temper..... | 790 |
| —Selecting mine foremen. Discussion..... | 76 |
| —Selective service not to blame..... | 278 |
| —Shortage of labor. (Notes) 193, 335, 420 | |
| —Shortage of mine labor. Discussion..... | 79, 186 |
| —Situation..... | 23, 69, 125, 180, 327, 235, |
| 322, 365, 407, 455, 511, 558, 603, | |
| 650, 701, 746, 787, 828, 867, 908, | |
| 951, 995, 1040, 1127, 1170 | |
| —Situation, mining..... Discussion..... | 182 |
| —Slacker on record..... | 78, 144, 186, 224 |
| —Slackers in mines. Discussion..... | 413, 461 |
| —Untrained men will not serve our ends..... | 609 |
| —Wage adjustment. Discussion..... | 752 |
| —Wage arrangement, after-the-war..... | 411 |
| —Wage bonuses..... | 23 |
| —Wage increase. Secretary Wilson on..... | 703 |
| —Wage scale increase, anthracite 455, 789, 877 | |
| —Wage scale, Missouri..... | 457 |
| —Wages adjusted to living costs..... | 25 |
| —Wages, Greater efficiency or lower..... | 1042 |
| —Wages in Silesia..... | 1040 |
| —Wages, Shamokin district..... | 995 |
| —Want pay for what others endured..... | 705 |
| —Waste, coal. Discussion..... | 1176 |
| —When John no longer defers to you..... | 705 |
| —Working hours..... | 25 |
| Lackawanna Coal & Coke Co. (Photo)..... | 1074 |
| Lament, A. T. Accounting of materials..... | 956 |
| La Motte, A. Safety in use of explosives..... | 490 |
| LAMP, MINERS' | |
| —Acetylene and electric cap lamps, Chance..... | 1118 |
| —Acetylene safety lamp. Chance..... | *824 |
| —Carbide vs. electric. Discussion..... | 30 |
| La Salle County Carbon Coal Co.—Longwall mining. Harris..... | *388, Machine mining..... |
| Harris..... | *536 |
| Latitude and departure notes Hampsh..... | *768 |
| Latitude and meridian. Callen..... | *168 |
| Laundries not to be curtailed..... | 364 |
| Lauther, L. V. Convenient fuse tester..... | 298 |
| Law, A. F..... | *825 |
| LAW. See also "Compensation." —Interpreting mining laws. Discussion..... | 33, |
| Legal decisions 62, 213, 318, 357, 390, 436, 544, 604, 649, 694, 727, 784, 825, 907, 948, 965, 981, 1030, 1124, 1162 | |
| Lawrence, J. Selecting mine foremen..... | 76 |
| Laws, R. Mine-car door..... | *75 |
| Lawrence, J. Spikeless batteries *769, Lo- cating coal beyond fault..... | *915 |
| Lawton, W. Use and location of booster fans, *461, Pulling heavy timbers..... | *626 |
| Leckie Fire Creek Coal Co. Plant at Fireco..... | *492 |
| Leckie, W. Sketch; portrait..... | 1037 |
| Lehigh Coal & Navigation Co.—Shaft at Greenwood colliery *397, Burning smoke- less coal *509, Motor truck *627, Posters to boost coal tonnage 740, Modern sub- stations..... | *850 |

| | |
|---|------------------|
| Lehigh Valley Coal Co.—Redivision of districts 289, Fire in William A. Coll. 289. | |
| Fourth Liberty Loan | 713 |
| Lens coal mines. (Note) | 801 |
| Let the operator get on the job 185, Discussion | 656, 793 |
| Let us be liberal hosts to our men | 870 |
| Levin, N. D. Suggestion for increasing coal production | *104 |
| Libbie, G. Squibs vs. electric fuse 328, Dealing with slackers in mines 413, Mine rescue work | 656 |
| Licenses, distributors' stopped | 744 |
| Lieberman, B. P. Mine-car axles | 219 |
| Lightburn, R. W. The mining situation 78, Sealing off fire on intake 143, Shortage of mine labor 186, Ventilating a gassy slope mine 372, Blasting ditch in a mine 416, Priming a cartridge 521, Exemption for coal miners 709, Iron vs. wood mine cars 960, Perplexities of mine foremen | 104 |
| Lighting order, new | 923 |
| Lighting set, Portable. Huskinson | *722 |
| Lightless nights again in effect | 178 |
| Lights, snuffing. (Note) | 1182 |
| Lignite, mining in creese | 1165 |
| Lignite. (Notes) | 467, 571, 1168 |
| Littlehales, R. Pillar workings | *31 |
| Lloyd George address, extract | 451 |
| Lloyd, J. Scraper mining in low seams | 371 |
| Loaded, coal, Lake Erie docks | 987 |
| Loader, Box car. Usher | *102 |
| Loader, Levin | *104 |
| Loaders, Portable coal. (inq.) 961, Discussion | 1135 |
| Loading at face. Discussion. 282, 416, 567, 658 | |
| Loading coal, methods and appliances. Engel | *974 |
| Loading equipment. Mackie | *120 |
| Loading, Hampton Roads | 1027 |
| Loading, Lake Erie docks | 814 |
| Loading with electric shovels. Brennan | *1018 |
| Loadings show increase over 1917 | 907 |
| Locating coal beyond a fault. (inq.) *797, Discussion | *915, *1088 |
| Locker arrangement | 534 |
| Locomotives, Advantages of storage-battery. Chappelle | *437, Discussion |
| Locomotive, storage-battery. Ashmead | *548 |
| Locomotives, Hauling capacity of. Discussion | 958 |
| Locomotives, storage-battery. (inq.) | 660 |
| Locomotives and trucks, Electric | 387 |
| Locomotives, Exhaust of gasoline. (inq.) | 375 |
| Locomotives—Gathering attachment | 121 |
| Locomotives, three types | *118 |
| Logan Coal Co.—Haulage, Air-charger | *202 |
| Lubrication, Air-cylinder. (inq.) 522, Discussion | 836, 1132 |
| Lubrication, Coal production and Traut-schold | 175 |
| Lubrication of air compressors. Callan | 211 |
| Lucas, A. Grit guard for overhead drillings *299, Old man fastening *387, Removing a tight crank pin *428, Positive grip for oil cans *723, The cold chisel *730, Special drilling device *891, Tip for ink bottle | *930, *385 |
| Lucky thirteen. Strohm | *385 |
| Luxton, W. H. Locating coal beyond a fault | *1088 |
| Lyons, J. Testing a breathing apparatus | *1019 |

M

| | |
|--|-------|
| McDowell Coal Co.—(Photos) | 449 |
| Mackall, K. W. Electric headlights on mining locomotives | *1060 |
| Mackie, E. M. Haulage and loading equipment | *120 |
| Madiera-Hill Coal Co.—Automatic tippie switch. Price | *250 |
| Madison Coal Corp.—Mine No. 6 *4, Automatic deflector *92, Portable saw | *93 |
| Magazines | *1111 |
| Magraw, R. M. Increased production in war-time | 635 |
| Maize, R. Ventilating a gassy slope mine 565, Use and location of booster fans | 659 |
| Mandel, E. L. Keeping track of miners' safety | 93 |
| Manheim, W. Va. Coal longwall mine | 1150 |
| Map, No. 6 mine, Madison Coal Corp. | 9 |
| Map, Orient mine | 345 |
| Map, Philippine Islands | 594 |
| Map, topographical, mine town | *131 |
| Map, Vancouver island | 353 |
| Map, West Va., price districts | 737 |
| Mapping, Surveying and. Discussion | 30 |
| Maps, mine | 632 |
| Maps—Percentage of grade. (inq.) *756, Discussion | 959 |
| Marcus screen. Miller | *171 |
| Marshall, R. A. Ventilating a gassy slope mine 914, Hindrances to coal production 1005, Miner and safety | 1178 |
| Martin, C. Plant of Conemaugh Smokeless Coal Co. | *19 |
| Material needed in mine rescue work | 930 |
| Mathiessen & Hegeler Zinc Co.—Alarm. Decker | *972 |
| Maximum production for humanity's sake. Porter | *97 |
| May we show the warriors a seat? | 1130 |
| Mayer, R. W. The mining situation 186, Shipping at world's largest coal mine 566, Unique mine portal | *909 |
| Mechanical energy vs. human muscles | 91 |
| Mechanics. Recovery of byproducts 60, Coal carbonization 129, Storing small coal 255, Reinforced concrete props 362, Carbonization and distillation peat 588, Advantages of using power gas 689, Gasification of coal 982, Purification of coal gas by electricity | 1071 |

| | |
|---|--------------------|
| Meridian, Determination of latitude and Callen..... | *168 |
| Methane as a fuel. Williams..... | *988 |
| Methods of operation. Brown..... | 313 |
| Michaelsen briquetting machine. Klebba..... | *596 |
| Miller, G. H. Town planning..... | *130 |
| Miller, R. G. Marcus screen at Carnegie Coal Co..... | *171 |
| Mined coals. 111, 170, 213, 269, 359, 552 642, 940 | 868 |
| Mine more coal. (Poster)..... | 329 |
| Miner and his pleasure. Discussion..... | 463, 613, 637, 796 |
| Miner and safety. Discussion..... | *707, 877, 1177 |
| Miner as a casual worker..... | 362 |
| Mining engineer. Value of. Discussion..... | 708 |
| Mining equipment, Discussion 140, 372, 913, 959 | 996 |
| Mistaken idea..... | 269 |
| Money lost up a chimney..... | 553 |
| Moral value of fuel administering. Taylor 13 | 3 |
| More profitable for whom? (Cartoon)..... | 177 |
| Morgantown & Kingwood R.R. may sus- pend. (Note)..... | 433 |
| Motor. See "Electricity." "Haulage" | 359 |
| Moving pictures for education..... | 177 |
| Moving mining machinery..... | 912 |
| Mule. New mine..... | 433 |
| Mules versus the juice..... | 359 |
| Murray, W. J. Obituary. Parsons 643; | 875 |
| Reminiscences. Rice..... | *711 |
| Myers-Whealey shoveler and loader..... | |
| N | |
| Nail, upturned. (Photo)..... | 177 |
| Nails, driving. (Photo)..... | 675 |
| National Retail Coal Merchants' Assn..... | 964 |
| National Safety Council—History 484. Pa- pers 490, 503, 510, 728, 901, 1118, Meet- ing..... | 502 |
| Neale, J. B..... | 229, 897, 954 |
| Neglected coal field in W. Va..... | 595 |
| Nerves of the mine. Gawthrop..... | *108 |
| Neville Island coal plant..... | 684 |
| New Alexandria Coke Co.'s good record..... | 828 |
| New coal mine applications..... | 179, 363 |
| New England. No more new industries..... | 274 |
| New River Co.—Slacker boards..... | 433 |
| News from the capital. Wootton 21, 67, 133, 178, 225, 274, 319, 363, 405, 451, 513, 556, 602, 648, 698, 744, 785, 826, 865, 905, 949, 992, 1038, 1125, 1168 | 1147 |
| New Year. Parsons..... | 1171 |
| New Year's Greeting. (Poster)..... | 819 |
| New Zealand. Shortage of coal..... | 993 |
| Nims resumes law practice..... | |
| Noone, W. H. Sealing off fire on intake *33. Interpreting mining laws 143. Safety in shutoffing 234. Blasting a ditch in a mine 415. Dealing with slackers in mines 461. Americanizing the foreigner 614. Steel tires vs. chilled-iron wheels..... | 833 |
| Norfolk & Western Ry. electrification..... | 562 |
| Operators, R. V. Prices bituminous coal 685, 736 | |
| North Western Mining & Exchange Co.— System of mining *266. Brick and con- crete work..... | *780 |
| Northwest needs man power. Norton..... | *16 |
| Norton, C. P. Northwest needs man power..... | *16 |
| No wonder hard coal is scarce. (Cartoon)..... | 1121 |
| Nut, locking. (Photo)..... | 157 |
| O | |
| Oblique faced rooms. Sutherland..... | *580 |
| Occlusion of explosive gases in coal Ash- worth..... | 990 |
| Ohio prices..... | 22, 67 |
| Ohio, production. 1917. (Notes) 149, 195, 307; 1918 1008 | 335 |
| Ohio River shipment. (Note)..... | *723 |
| Oil cans. Positive grip for. Lucas..... | 808 |
| Oilgroove by hand, cutting. (Photo)..... | 1183 |
| Oklahoma, coal deposits sold. (Note)..... | 1006 |
| Oklahoma production 1918. (Note)..... | *387 |
| Old man fastening. Lucas..... | 400 |
| Oliver Iron Mg. Co.—Shaft relined with cement gun..... | 552 |
| On center and backfired..... | |
| On your work their health depends. (Poster)..... | 1043 |
| One-industry nation..... | 324 |
| Operator's attitude to workingman..... | 750 |
| Operators' contract McAdoo..... | 556 |
| Orient mine. Harris..... | *344 |
| Otis, S. D. If we would be safe..... | 132 |
| Our great-hearted coal miners. Flexner..... | *498 |
| Output be increased scientifically. Joyce..... | 356 |
| Output is consumed. How our..... | 360 |
| Outputs, large patriotic miners..... | 632 |
| Overcome on reaching fresh air. (inq.)..... | 35 |
| Owens, W. D. Power of coals and gas 312, Fans and boilers..... | 937 |
| P | |
| Pacific Coast Coal Co.—Explosion (Note)..... | *525 |
| Paint, weather resistant..... | 433 |
| Parsons, F. W. Traveling toward daylight 47. A single purpose 249. Your troubles 341. Obituary W. J. Murray 643. Hun propaganda 673. Days of reconstruction 721. Spanish influenza 767. The new year..... | 1147 |
| Partners with the Kaiser. Kneeland..... | 579 |
| Pascoe, T. J. Blasting with the lightning circuit..... | *342 |
| Patriotic duty of buyers. Hall..... | 929 |
| Patriotic work at Gary..... | 741 |
| Paul breathing apparatus..... | 864 |

| | Page |
|---|---|
| Peabody coal development in central Illinois. Harris. | *810 |
| Peabody, F. S. Government control. | 1112 |
| Peace and waste are not synonymous. | 954 |
| Peale, R. resigns. | 1126 |
| Pearson, E. A. Heat treatment of axle steel | 332 |
| Peat as fuel. | 315 |
| Peat. Advantages of heat treatment. | 734 |
| Peat. Carbonization and distillation. Meredith | 588 |
| Peat deposits of United States. | 115 |
| Peat exhibit. (Note). | 149 |
| Peat fuel. Would replace coal by. | 819 |
| Peat industry breaks records. | 226 |
| Peat. Uses of, in agriculture. | 63 |
| Peele's mining engineer's handbook. | 1223 |
| Penn., Central, miners go over the top. | 222 |
| Penn. Coal Co.—(Photos) 64. Production | 83 |
| notes. | 289 |
| Penn. Dept. of Labor, bulletin, eye accidents | 402 |
| Penn., coal production. (Notes). | 37 |
| Penn. Fuel Co. license restored. (Note). | 1095 |
| Pennwell Coal Co.—Coal mined 1918. | (Note) |
| (Note). | 240 |
| Perplexities of mine foremen. Discussion. | 656, 793, 1002, 1047. |
| Perry Coal & Sand Co. | *1020 |
| Persons, C. E., director of education. | 699 |
| Phelps Dodge Corp.—Y. M. C. A. Willis. | *486 |
| Philippine coal fields develop slowly. | *594 |
| Pillar workings. Discussion. | *31 |
| Pipe. Device for bending small. Jaross. | *251 |
| Pipe fitting simplifies shaft leveling. | (Photo) |
| Pipe hangers. | 674 |
| Pipe. Hickey for bending. | 849 |
| Pioneer anthracite mining engineer. | *626 |
| Pittsburgh Terminal R.R. & Coal Co.— | 825 |
| Meeting. | 272 |
| Planning, town. Miller. | *130 |
| Plant, J. H. Wire-rope formulas. | 1137 |
| Playground. (Photo). | 325 |
| Pocock, F. A. Coal mining and man power | 350 |
| Poetry *155, *201, *354, *385, *427, *540, | *625, *807, 1015 |
| Portal, Unique mine. Mayer. | *909 |
| Porter, H. K. Maximum production for | 958 |
| humanity's sake *97. Hauling capacity of | 72 |
| locomotives. | 72 |
| Postage rates, increased. | 72 |
| Posters 29, 74, 139, 281, 370, 412, 460, | 515, 563, 610, 653, 706, 749, 792, 832, |
| 868, 872, 912, 955, 998, 1043, 1084. | 1129, 1171 |
| Posters to boost coal tonnage. | 740 |
| Powder flasks. | *103 |
| Powell, J. W. Sealing off fire on intake | 285, Squibs vs. electric fuse, 519. Ven- |
| tilating a gassy slope mine *566. Working | 10-ft. inclined seam *611. Simple derail- |
| ing device *931. Iron vs. wood mine cars. | 999 |
| Power of coals and gas. Owens. | 312 |
| POWER. See also "Boiler," "Engine," etc. | |
| —Automatic circuit breakers. | *349 |
| —Auxiliary power to drive fan. Discussion | *76 |
| —Coal saving at power plants. | 905 |
| —Demand and consumption as to capacity | and production |
| —Elimination of power losses. Bright. | *775 |
| —Fuel Administration to settle power con- | *1021 |
| troversy. | 513 |
| —Increasing coal mine efficiency. Stuart | *724, 773, *830, *857. |
| —Isolated to central station power. Husk- | *903 |
| inson. | *14 |
| —Isolated plant vs. purchased power. | 1173 |
| —Luzerne County Electric Co. combination. | (Note) |
| —Motor-driven shaft hoist installation. | 467 |
| —Hines. | *50 |
| —Motor generator set. (Photo). | 892 |
| —Power house at Cassidy's. (Photo). | 981 |
| —Steam power plant conservation. | 319 |
| —Steam turbine units. Terry. (Photo). | 64 |
| —Substations, anthracite distribution sys- | *850 |
| tem. | *891 |
| —Substations, Outdoor mine. Young. | *434 |
| —Substation, underground synchronous. | 655 |
| —Hines. | |
| —Water-power development. | |
| PREPARATION | |
| —Breaker, all-steel. (Note). | 1182 |
| —Equipment used in Pacific northwest. | *18 |
| —Jigs. Elmore. | *122 |
| —Plant of Williams Pocahontas Coal Co. | Jaxon. |
| —Screen, Marcus, at Carnegie Coal Co. | *171 |
| —Miller. | *589 |
| —Screen, New type. Raymond. | *932 |
| —Surface plant of Orient mine. | *582 |
| —Tipple at Parnassus, Penn. Jaxon. | 1106 |
| Preservative treatment of mine timbers. | 1025 |
| Price, T. F. Firing wet holes 48. Finding | the dump pivot *202. Automatic tipple |
| switch. | *250 |
| Prices, bituminous coal fixed. Garney. | 736 |
| Prices, Brazil. | 1160 |
| Prices, coal, 22, 67, 195, 226, 275, 378, | 406, 744, 950, 1039, 1168 |
| Prices, Coal, in Ireland. | 936 |
| Prices, Current, materials and supplies 45, | 247, 475, 671, 1101 |
| Prices, German pre-war and present coal. | 642 |
| Prices materials and supplies 45, 247, 475, | 671, 887 |
| Prices, New schedule of anthracite. | 905 |
| Prices, Retail. | 827 |
| Pride and Percy Verance. | 940 |
| Priming a cartridge. Discussion. | *327, 521 |
| Priority bureau. | 226 |
| Production and lubrication. Trautschold. | 175 |

| | Page |
|--|---|
| Production, anthracite, increase. | 997 |
| Production, 1917, U. S., 647, 745; first | half 1918 |
| Production bureau to cooperate with mine | owners |
| Production committee 275. Managers. | 363 |
| Production, France since 1913. | 900 |
| Production, Hindrances to coal. Discussion | 463, 612, 710, 795, 873, 1003, 1044, 1087 |
| Production. Intemperance hampers. Hall. | 297, Discussion |
| Production in war-time, Increased. Magraw. | 635 |
| Production manager, Coal industry's. | 953 |
| Production. Novel scheme for boosting. | *361 |
| Production quotas assigned. | 744 |
| Production, United Kingdom, 1917. | 1164 |
| Progress, Don't apostrophize. | 997 |
| Prohibition. (Notes). | 135 |
| Prop. jack, Quickly adjusted. Goodnow. | *342 |
| Props. Reinforced concrete pit. Meredith. | 362 |
| Protect equipment from lightning. | 459 |
| Provincial rights dispute in Canada. Dunn. | 633 |
| Fryde, G. B. Wartime economies. | 1131 |
| Public does not know. What. | 535 |
| Pulley. (Photo). | 184 |
| Pulverized fuel. | 184 |

| | Page |
|--|--------|
| PUMPING | |
| —Centrifugal mine pumps. (Inq.). | 1049 |
| —Handling mine water. Cole. | *264 |
| —Motor-driven pumps. | *117 |
| —Pump repair. Hainley. | *1105 |
| —Triplex pump, wood lined. | *101 |
| —Waste of coal in pumping plants. | 904 |
| —Water indicator and motor stop. Husk- | inson |
| Purchase of mining machinery and supplies. | Bowron |
| | 782 |

R

| | Page |
|--|------------------------------------|
| Rail. Elevation of outer. Discussion | 284 |
| Rails. Cause of brittleness in mine. Crevel- | ing (Inq.) |
| Rails. Salvaging buried. Hyde. | 626 |
| Rails. Straightening bent. Butler. | 722 |
| Rails. Straightening brittle. Discussion. | 77 |
| Railroad accidents. (Notes) 39, 421, 1079 | 992 |
| Railroad congestion. | 319 |
| Railroad mines not to get preference. | 1086 |
| Railroads—Gov't. ownership. | 231 |
| Railroads make raid on production. | 786 |
| Railroads moving more coal this year. | 1172 |
| Railroads should deliver clean cars. | 1122 |
| Railway, Virginian, coal pier. | 256 |
| Rainey, W. J. Interests, Byproduct coke. | 20 |
| Rainey-Wood Coke Co. | 1137 |
| Ramsey, G. W. Mine-car door *140. Wind- | ing armatures |
| Raymond, M. Increased production with | modern machinery *127. New type of |
| screen. | *589 |
| Read, R. G. Simpson Creek Coal Co.'s tip- | ples |
| Readjustment period, Coal in. | 1086 |
| Reconstruction, Days of. Parsons. | 721 |
| Reconstruction congress 947. Address. | 1112 |
| Record would put blame where due. | *270 |
| Records. Careful, reduce mine accidents. | 503 |
| Recovery plant, Effective. | 10 |
| Red Cross. (Photos) 403. (Poster) 1084. | 954 |
| Reestablishment or reconstruction. | 880 |
| Rehabilitation work. (Notes). | 875 |
| Reminiscences of a life-long friend. Rice. | 2 |
| Repairs. Now is time for. Seaburg. | 508 |
| Report sheet. | 1019 |
| Rescue apparatus. Gibbs. Lyons. | 656, 1001 |
| Rescue, mine, work. Discussion. 32, 283, | 936, 1020, 1112, 1162 |
| Rescue. (Notes). | 864 |
| Rescue—Paul breathing apparatus. | 320 |
| Rescue work at fairs. | 930 |
| Rescue work, Material needed. | 902 |
| Rescue work, Suggestions for mine. | 852 |
| Research. Engineering. | *354 |
| Responsibility. Braley. | *497 |
| Resuscitated after long treatment. | 1053 |
| Retail coal and coke dealers to register. | 603 |
| Revenue bill. Changes in. | 740 |
| Reward for patriotism in West Va. | 1088 |
| Reynolds, E. D. Locating the coal beyond | a fault |
| Reynolds S. C. Snow-Bird mine. | *58 |
| Rhonda, Viscount. Death of. | *64 |
| Rice, C. T. Device for binding timbers | on a truck |
| Rice, G. S. Reminiscences of a life-long | friend |
| Rice, A. F. report. (Note). | 1095 |
| Richardson, G. A. Steel mine ties. | *112 |
| Roan, J. M. Charge of clean coal in- | spectors |
| Rocky Mountain Coal Mg. Inst.—Meeting | and papers |
| Roddie, J. M. First aid to the uninjured. | 283 |
| Rope support. | 729 |
| Rope break from sudden jerk? Did. | 1137 |
| Rope formulas. Wire (Inq.). Plant. | 11 |
| Ropes. Life and care of hoisting. | *343 |
| Ropes, wire, socketing. | 1002 |
| Rose, J. Perplexities of mine foremen. | |

S

| | Page |
|---|------|
| Safety Congress to precede bond issue. | 272 |
| SAFETY. See also "Rescue," "First Aid," | |
| "Accidents," "Examination Questions," | |
| "Lamps," "Explosion," etc. | |

| | Page |
|---|---|
| SAFETY—Continued | |
| —Accidents, Mine. Jarrett. | 262 |
| —Alarm bell on car. Stafford. | *429 |
| —Appliances in warfare. Trego. | 504 |
| —Carrying tools up a ladder. | *273 |
| —Constructive practice in mining. Discus- | sion |
| —Danger signs, changing. Otis. | 1135 |
| —Deflectors, automatic. | 132 |
| —Derailments are potential casualties. | *92 |
| —Electric hoist, Safety on. Calloway. | 517 |
| —Explosives, Safety in use. La Motte. | *478 |
| —Falls on roadways. (Poster). | 490 |
| —First-aid to the uninjured. Discussion. | 955 |
| —Handling electric detonators. (Inq.). | 283 |
| —Importance of spreading safety work. | 80 |
| —Keeping track of miners' safety. Mandel. | 790 |
| —Lamps from a safety standpoint. Chance. | 93 |
| —Let safety help the war. | 1118 |
| —Miner and safety. Discussion *707, 877, 1177 | 847 |
| —Mine safety in wartime. Harrington. | 638 |
| —Odor warning. Tests on. | 275 |
| —Pillar workings. Discussion. | *31 |
| —Powder flasks and fire pails. | *103 |
| —Progress in accident prevention. | 483 |
| —Rescue, mine, work. Discussion 32, 283, 656 | 901 |
| —Safeguards in anthracite breakers and | washeries. Glover. |
| —Safety relies on "come-along" spirit. | 517 |
| —Sealing off fire on intake. Discussion. | *33, 143, *187, 236, 285, 520 |
| —Shotfiring in mines. Discussion. | 234, 327 |
| —Squibs vs. electric fuse. (Inq.) 145. Dis- | cussion |
| —St. Louis Rocky Mtn. & Pacific Co.—Sugar- | ite, N. Mex. plant. Huskinson. |
| Sakon, F. W. Resistance terminal connec- | tions |
| Sand pit. Coal mine proves. | *1020 |
| Saving, coal. | 691 |
| Saving materials. Hutchings. | 3 |
| Saw. Portable, for mine use. | *93 |
| Scattering what we have garnered. | 996 |
| Schaack, D. V. (Photo). | 485 |
| Schaphorst, W. F. How big is 150,000,000 | tons of coal? |
| Scheble, M. C. Raising two 350-hp. boilers. | *392 |
| Scholz, C. Auxiliary power to drive fan. | 76 |
| Schwartz, E. Grease cup filler *930. Re- | moving broken studs |
| Scranton Coal Co. fire. (Note). | *972 |
| Scraper mining in low seams. | 1094 |
| Scraper mining of thin bed anthracite. | 371 |
| Screen. New type. Raymond. | *316 |
| Screenings. Must find market. | *589 |
| Screwdriver as a saw set. (Photo). | 319 |
| Screwdriver, crank. | 675 |
| Screws, machine, held tight. | *1077 |
| Seaburg, N. H. Now is time for repairs. | 534 |
| Security Coal & Mining Co. plant. | 2 |
| Seeing the boss wastes time and temper. | *263 |
| Senate investigating coal industry 994. | 791 |
| Serviss, F. L. Surveying and mapping 30. | 1038, 1125 |
| Value of the mining engineer 708. Coal— | how analyzed |
| Sewer pipe for water lines. | 1154 |
| Shaft for water hoisting and ventilation. | 1042 |
| Shaft, Freezing of, in winter. Discussion. | *397 |
| Shaft pillars in mines. Size of. | 1134, 1175 |
| Shaft problems hoisting. (Inq.). | 230 |
| Shaft relined with cement gun. | 1049 |
| Shall we seek more or better mines? | 400 |
| Shells, Coal mining and three-inch. | 411 |
| Sheridan Coal Co. (Photo). | 459 |
| Sherwin, P. M. Hazard coal field. | 448 |
| Shipments, coal. (Notes) 149, 179, 401, | 601, 1153, 1183 |
| Shipments, Lake. (Notes) 275, 923, 1169, 1188 | 1132 |
| Shipments, zoning system. Discussion. | 586 |
| Shipping facilities at the world's largest | coal mine. Mayer. |
| Ships. Relationship of coal to. | 457 |
| Shotfiring. See "Blasting." | |
| Shovel, Erie. | *94 |
| Shovel and loader. (Inq.). | *711 |
| Shovels, electric, Loading out coal. Bren- | nan |
| Shovels, electric, Underground mining. Witt- | hoff |
| Signaling. | 936 |
| Signaling in British coal mines. Walker. | 980 |
| Signal system on mine slope. Brehm. | *479 |
| Signal to indicate discontinuance of load. | *723 |
| Simpson Creek Coal Co.'s tipples. | 430 |
| Sines, cosines, etc. (Inq.). | 465 |
| Single purpose. Parsons. | 249 |
| Situation, Mining. Discussion. | 78, 144, 186 |
| Sizes of fresh-mined anthracite. | 780 |
| Skip-stop coal saving. | 866 |
| Slight mixing of words. | 111 |
| Sloman M. S. Cement gun in bituminous | coal mine. |
| Slush line joints. | *1158 |
| Smillie S. Cost of upkeep of mine cars. | 428 |
| Snapshots in coal mining. | 1174 |
| Snow-Bird mine. Reynolds. | 448 |
| Socketing wire ropes. | *58 |
| Somers, J. Specializing in the mine. | *343 |
| Southern Mg. Co. (Photo). | *109 |
| Spaht, A. W. Travel of electric current. | 307 |
| Spanish influenza. Parsons. 767; (Posters) | 792, 872; (Notes) 714, 758, 799, 839, 867 |
| Specializing in the mine. Appleton and | Somers |
| Specific gravity of coal. Blakeley 1078. | *109 |
| Erratum. | 1165 |
| Speeding up mining in shallow drifts. | Kirchgasser |
| | *202 |

| | Page |
|---|----------|
| Spending and helping the enemy..... | 49 |
| Sperr, F. W. Byproduct coking practice. 1068, *1114, *1156 | |
| Springer, J. F. Concrete foundations *204, *628 | |
| Squeals, All but the..... | 911 |
| Stafford, M. Mine-car door *141, Sealing off fire on intake *188, Alarm bell on mine car *429, Suggestion for a sharp curve *722, Method of working thick coal..... | *890 |
| Standard Oil Co..... | 1140 |
| Statistics, Standardization of mine..... | 27 |
| Steam, Raising, with waste products of yesterday..... | *676 |
| Steck, E. Estimating power in haulage..... | 833 |
| Steel for chutes, Rejected shell..... | 649 |
| Steel, switching cabinet..... | *742 |
| Steel tires vs. chilled iron wheels. Discussion..... | 833 |
| Steels, cross-sections of iron and. (Photo)..... | 220 |
| Stefansson discovers coal in north. (Note)..... | 618 |
| Stick to your job. Strohm..... | 741 |
| Stoek, H. H. Coal problem under war conditions 393, Development period of a mine..... | 1076 |
| Stokers lose heart. (Poster)..... | 610 |
| Stonaga Coal & Coke Co.—Miners' Safety. Mandel..... | 93 |
| Storage of anthracite. Loss in. (inq.)..... | 330 |
| Storage, bituminous, increase authorized..... | 785 |
| Storage, bituminous, limit off..... | 994 |
| Storage, Plant operates by..... | *263 |
| Storage policy of Fuel Administration..... | 405 |
| Storage regulations, Revision..... | 602 |
| Storage, Some new ideas in coal..... | 174 |
| Storage suggestions. Stoek..... | 395 |
| Stored at the mines, If coal had been..... | 323 |
| Storing small coal. Meredith..... | 255 |
| Stow, A. H. What is the matter with the miner?..... | 539 |
| Straight stuff. Braley..... | 625 |
| Stripping. (Notes)..... | 37, 378 |
| Stripping, anthracite *57, Kennedy..... | 644 |
| Stripping coal with a grader..... | 694 |
| Stripping, Increased output by. Vicary..... | *94 |
| Stripping, Worland, Mo. (Photo)..... | 449 |
| Strohm, R. T. The interpretation *155, A voice from the trenches *201, The lucky thirteen *385, The heroes of the pick *427, Think man think *477, Stick to your job 741, The invincibles 1015, Back to the mines..... | 1103 |
| Stuart, C. E. Increasing coal mine efficiency *724, *773, *820, *857, *903, Sketch..... | 861 |
| Studs, Removing broken. Schwartz..... | *972 |
| Substations, Outdoor mine. Young..... | *891 |
| Sulphur, Reclaiming..... | 230 |
| Supply and equipment section..... | 452 |
| Surveying and mapping. Discussion..... | 30 |
| Surveying—Cold weather instrument work..... | 790 |
| Surveying—Latitude and meridian. Callen..... | *168 |
| Susquehanna Coaleries Co..... | 23, 1140 |
| Susquehanna River navigable. (Note)..... | 1057 |
| Sutherland, G. W. Oblique faced rooms..... | *580 |
| Switch, automatic. Ramsay..... | *580 |
| Switch, automatic tippie. Price..... | *250 |
| Switch, Auto-lock safety..... | *554 |
| Switch, Calculating a room. (inq.) 756, Discussion..... | 1087 |
| Switch—Frogs and latches. (inq.)..... | 1179 |
| Switch, mine, calculations. (inq.)..... | *961 |
| T | |
| Table—Bituminous coal consumption, U.S. 1915..... | 170, 360 |
| Table—Coal deposits of world..... | 909 |
| Table—Entry progress, Hampsch..... | 63 |
| Tables—Coke..... | 1034 |
| Tabulating and computing latitude and departure notes. Hampsch..... | *768 |
| Tague, J. Americanizing the foreigner..... | 708 |
| Taxation, Fair and unfair..... | 26 |
| Taxation, mine..... | 826 |
| Taylor, J. C. Moral value of fuel administering 13, Credit of the coal man..... | 267 |
| Taylor, J. H. Loading coal at the face..... | 567 |
| Teamwork between engineer and mine foreman..... | 222 |
| Teas, P. Efficient haulage methods..... | *106 |
| Telephone, electric mine..... | *108 |
| Telephone, switchboard, mine. (Photo)..... | 895 |
| Tendency of the times..... | 213 |
| Terminology of coal deposits..... | 72 |
| Testing for gas in mines. Gray..... | *217 |
| Testing—Methane as a fuel. Williams..... | *988 |
| Testing—Specific gravity of coal. Blakeley..... | 1165 |
| 1078, Erratum..... | 269 |
| They were the happy days..... | 787 |
| They are not hoisting booze but coal. (Cartoon)..... | *477 |
| Think, man, think! Strohm..... | 562 |
| This is the day of the spoken word..... | 1177 |
| Thomas, J. R. Ventilating gassy slope in mine 326, The miner and his pleasure 463, Hindrances to coal production 710, Blackdamp on pitches 753, Justice to the miner 916, Estimating percentage of grade 959, Miner and safety..... | 1177 |
| Thomas, L. R. Permissible explosives in mining 518, The miner and safety 877, Justice to the miner..... | 1047 |
| Thompson, C. H. Portable coal loaders..... | 1135 |
| Ties, Steel mine. Richardson..... | *112 |
| TIMBERING | |
| —Dog for lowering mine timbers..... | *386 |
| —Pulling heavy timbers. Lawton..... | *626 |

| | Page |
|---|-----------------|
| TIMBERING—Continued | |
| —Preservative treatment of mine timbers. Barth..... | 1025 |
| —Terms used in timbering..... | 781 |
| Tipple at Parnassus, Penn. Jaxon..... | *582 |
| Tipple, Madison Coal Corp..... | *5 |
| Tipple, Peabody Coal Co..... | 810 |
| Tipples, Simpson Creek Coal Co.'s. Read..... | *430 |
| Tithing America for world's benefit..... | 1172 |
| Tipton, J. H. Hindrances to coal production..... | 1087 |
| Tonnage drop? What makes..... | 280 |
| Tons of coal? How big is 150,000,000..... | *973 |
| Schaphorst..... | *273 |
| Tools up a ladder. Dangerous to carry..... | 674 |
| Tool rack, Clothespins useful as. (Photo)..... | *298 |
| Tool tray, non-tipping..... | 283 |
| Touhey, J. Mine rescue work..... | *820 |
| Tracks—Coal mine efficiency. Stuart..... | 284 |
| Track, Elevation of outer rail. Discussion..... | *112 |
| Track—Steel mine ties. Richardson..... | 929 |
| TRADE | |
| —Buyers, Patriotic duty of. Hall..... | 744 |
| —Cargo and coal handling methods at American ports..... | 1039, 1169 |
| —Exports 213, 335, 604, 827, 866, 907..... | 279 |
| —Foreign coal trade after the war..... | 573, 1008 |
| —Freight rates. (Notes)..... | 827, 865 |
| —Holland to get American coal..... | 378, 604 |
| —Imports..... | 1160 |
| —Imports, Brazil..... | 364 |
| —Lake coal handling charges..... | 911 |
| —Markets, to keep Germany from our..... | 950 |
| —Order closing Lake trade..... | 827 |
| —Retail prices hard and soft coal..... | 601 |
| —Retailers must file reports..... | 68 |
| —Shipments, anthracite increase..... | 275, 923, 1169 |
| —Shipments, Lake..... | 1170 |
| —Tithing America..... | 1153 |
| —Venice, Coal trade..... | 815 |
| Traer, G. W. Low temperature distillation of Ill. and Ind. coals..... | *648 |
| Transportation in middle west..... | 835 |
| Transportation of coal by canal. Discussion..... | 175 |
| Trautshold, R. Coal production and lubrication..... | 35, 567, 836 |
| Travel of electric current. (inq.)..... | 47 |
| Traveling toward daylight. Parsons..... | 504 |
| Trego, F. H. Mine safety appliances in warfare..... | *165 |
| Trevorton Coal Co.—Hoisting at Catherine colliery..... | *848 |
| Trolley construction for mines..... | *627 |
| Truck, Heavy towing with motor..... | 58 |
| Truck, motor. (Photo)..... | *1166 |
| Truck, Removable, switchboard units..... | 452 |
| 'Tuckahoe' breaks previous records..... | 1164 |
| UNITED KINGDOM | |
| —British mine accidents..... | 853, *898, *941 |
| —Byproduct coking in Great Britain. Kershaw..... | 778 |
| —Coke making in New South Wales..... | 642 |
| —Great Britain's fuel research. Meredith..... | 129 |
| —Macclesfield gas works. Meredith..... | 255 |
| —North of Eng. Inst. of Mg. & Mech. Engrs. (Paper)..... | 936 |
| —Prices, Coal, Ireland..... | 10 |
| —Recovery plant, Effective..... | 980 |
| —Signaling in British coal mines. Walker..... | 751 |
| —South Wales coals..... | 303 |
| —War and British coal supplies..... | 986 |
| —Winning the war with coal. Fisher..... | 1040 |
| United Mine Workers' election..... | 800 |
| UNITED STATES | |
| —Coal to Holland. (Note)..... | 1112 |
| —Government control. Peabody..... | 1168 |
| —Minerals produced 1917..... | 115 |
| —Peat deposits..... | 647 |
| —Production 1917, Coal and coke..... | 1038, 1125 |
| —Senate investigating coal industry..... | 740 |
| U. S. Coal & Coke Co.—Patriotic work at Gary..... | *102 |
| Usher, E. B. Box car loader..... | 1028 |
| Utah Fuel Co.—Unusual bounce condition. Watts..... | |
| V | |
| Valley Camp Coal Co.'s tippie at Parnassus, Penn. Jaxon..... | *582 |
| Value of the mining engineer. Discussion..... | 708 |
| Valve grinding. (Photo)..... | 675 |
| Valve seat remover. (Photo)..... | 674 |
| Vancouver coal utilized by U. S. Navy. (Note)..... | 572 |
| Vancouver Island production..... | 20, 210 |
| Vein, seam, horizon, blanket or bed?..... | 72 |
| Venezuela coal mines..... | *784 |
| Venice, Coal trade..... | 1153 |
| VENTILATION. See also "Gases, Mine." | |
| —Booster fans. Use and location. Discussion..... | *461, 659 |
| —Calculating velocities of air. (inq.)..... | 417 |
| —Emergency ventilator Jenkinson..... | *627 |
| —Elements in mine ventilation. (inq.)..... | 1137 |
| —Explosion, Ventilation after mine..... | 856 |
| —Fan, Auxiliary power to drive. Discussion..... | *76 |
| —Fan, Peabody Coal Co..... | *812 |

| | Page |
|---|----------------------|
| VENTILATION—Continued | |
| —Fans and boilers. Owens..... | 937 |
| —Gassy slope in mine. Ventilating. (inq.)..... | 326, 372, 564, 914 |
| —191 Discussion..... | 330 |
| —Natural mine ventilation. (inq.)..... | 690 |
| —Origin and development of ventilating fans..... | *774 |
| —Power consumption and demand of mine fans..... | 287, Discussion..... |
| —Problem, Ventilation. (inq.)..... | *461, 659 |
| —Reducing ventilation at firing time. Discussion..... | 1000 |
| —Shaft for water hoisting and ventilation..... | *397 |
| Verner, J. Reducing ventilation at firing time..... | 1000 |
| Vesta Coal Co.—No. 4 mine. Mayer..... | 586 |
| Vicary, A. C. Increased output by stripping..... | *94 |
| Victor-American Fuel Co. (Photo)..... | 65 |
| Virgin, R. Z. Education, financial and social barometer..... | 446 |
| Virginia prices..... | 236 |
| Virginia, Sewalls Point, coal-handling..... | *1122 |
| Vise, Carrying a heavy..... | *769 |
| Voice from the trenches. Strohm..... | 201, Discussion..... |
| Discussion..... | 414 |
| W | |
| Wages. See "Labor." | |
| Wagon mine a menace. Discussion..... | 282, 464, 834 |
| Wagon mines in Pittsburgh. Better prices..... | *58 |
| Wagon mines—Snow-Bird. Reynolds..... | 980 |
| Walker, S. F. Signaling in British coal mines..... | 705 |
| Want pay for what others endured..... | 147, 713, 799, 1168 |
| Warrior River Barge. (Notes)..... | |
| WAR TOPICS | |
| —After the war..... | 868, 870 |
| —Backing up our soldiers..... | 93 |
| —Back to the mines. Strohm..... | 1103 |
| —British coal supplies..... | 303 |
| —Buy a bond—loose the eagle. (Cartoon)..... | 640 |
| —Coal industry's part in war. Cornwell..... | 695 |
| —Coal mining is war work..... | 274 |
| —Coal problems under war conditions..... | 393 |
| —Consolidation of bureaus of coal zone permit and statistics..... | 866 |
| —District representatives..... | 133, 149, 994 |
| —Do your bit..... | 654 |
| —Don't let up till he puts up both hands. (Poster)..... | 832 |
| —Don't call miner till you want him..... | 508 |
| —Drafting miners. (Notes)..... | 180, 182, 239 |
| —Early-at-the-garden-gate. (Poster)..... | 839 |
| —Economies. Wartime. Pryde..... | 706 |
| —Enemy alien return? Will..... | 830 |
| —Engineers' regiment rejects miners..... | 408 |
| —Enlistment of Shorty McGee. Fletcher..... | *807 |
| —Exemption of W. Va. miners..... | 229, 709 |
| —Filling the Liberty Loan quota..... | 750 |
| —Flag at your tippie. (Poster)..... | 653 |
| —Flag, Our international..... | 1130 |
| —Forging the blade. (Cartoon)..... | 636 |
| —Fourth Liberty loan..... | 514, 516, 735 |
| —Fuel administrators. U. S. 699, 866; Canadian..... | 880 |
| —Fuel administrator, assistant. N. Y. State..... | 406 |
| —Furlough from military service..... | 514 |
| —Good security. (Cartoon)..... | 601 |
| —Here's where your coal is at fighting front. (Poster)..... | 412 |
| —He who saves serves..... | 773 |
| —Fun propaganda. Parsons..... | 677 |
| —Interpretation. The. Strohm..... | *155 |
| —Keep it burning. (Cartoon)..... | 651 |
| —Let safety help the war..... | 847 |
| —Let us be liberal hosts to our men..... | 870 |
| —Liberty bonds keep both running. (Cartoon)..... | 604 |
| —Liberty speaking..... | 561 |
| —Loyalty of foreign-born miners. Discussion..... | 189 |
| —Make your dollars protect her. (Cartoon)..... | 634 |
| —Men or coal? (Cartoon)..... | 788 |
| —Mine foreman a general in fray..... | 509 |
| —No covenanted peace with Germany..... | 655 |
| —Ordnance dept. officials transferred..... | 603 |
| —Partners with the Kaiser. Kneeland..... | 579 |
| —Patriotism with booze. You can't combine. (Poster)..... | 281 |
| —Peace and waste are not synonymous..... | 954 |
| —Peace without victory..... | 830 |
| —Pennant. Don't let them take. (Poster)..... | 139 |
| —President Wilson's proclamation to coal industry..... | 319 |
| —Problem in division. (Poster)..... | 74 |
| —Reconstruction, Days of. Parsons..... | 721 |
| —Responsibility. Braley..... | *354 |
| —Safety. Mine. Appliances in warfare. Trego..... | 505 |
| —Saving materials—a way to victory. Hutchins..... | 3 |
| —Schemes which cripple war work..... | 410 |
| —Scruples inspired by German statesmen..... | 911 |
| —Selective service not to blame..... | 278 |
| —Shall we traffic with Germany?..... | 910 |
| —Shot at the Kaiser. (Cartoon)..... | 496 |
| —Single purpose. Parsons..... | 249 |
| —Slacker boards in West Virginia..... | 433 |
| —Slackers in mines. Discussion..... | 413, 461 |
| —Smokeless coal. Advantage of burning..... | 508 |
| —Smother him with your coal. (Poster)..... | 749 |
| —Spending and helping the enemy..... | 49 |
| —Stamps. War savings..... | 22, 54 |
| —Stokers lose heart. (Poster)..... | 610 |
| —Straight stuff. Braley..... | *625 |

| | Page |
|---|----------|
| WAR TOPICS—Continued | |
| —Traveling toward daylight. Parsons.... | 47 |
| —Untrained men will not serve our ends.... | 609 |
| —Volunteer coalers..... | 1169 |
| —War Coal explosives. Broughton..... | 158, 258 |
| —War is won now let us win peace..... | 889 |
| —We've started something..... | 704 |
| —Winning the war with coal. Fisher..... | 986 |
| Washington. Coal mining in Carbonado. Jarrett..... | 308 |
| Waste due to excessive ash in coal..... | 692 |
| Waste gases for steam generation. Kershaw..... | 591 |
| Waste of coal. Discussion..... | 1176 |
| Water indicator and motor stop. Huskinson..... | 358 |
| Water-power development..... | 655 |
| Waterproofing cement work. (Inq.)..... | 1092 |
| Watkins, T. H. Letter to mine foreman..... | 560 |
| Watson, C. W. Sketch. (Portrait)..... | 818 |
| Watson, M. M. The mining situation..... | 235 |
| Watts, A. C. Unusual bounce condition..... | 1028 |
| Weir, J. Mine-rescue work..... | 1001 |
| Weitzel, E. H. Justice to the miner..... | 753 |
| We must all grow old some time. (Poster)..... | 515 |
| Western Fuel Co.—Harewood mine 59. Broken cable..... | 1007 |
| West Kentucky Coal Co.—Fire. (Note)..... | 290 |
| West Va., Neglected coal field..... | 595 |
| We've started something..... | 704 |
| What is the matter with the miner? Stow..... | 539, 753 |
| What one ton of coal will do..... | 826 |
| Wheeler, D. I. Mine motor..... | 1167 |
| Wheels. Steel tires vs. chilled-iron. Discussion..... | 833 |
| When John no longer defers to you..... | 705 |
| When your neighbor is angry..... | 654 |
| White Coal Co., E. E.—Boosting production..... | 361 |
| White, J. G. Report..... | 692 |
| White, J. L. Sealing off fire on intake..... | 373 |
| White Sulphur Springs meeting..... | 605 |

| | Page |
|--|------------|
| Who gets hurt and when?..... | 480 |
| Who's who in coal mining. *20, *360, *404, *818, *861, *897, *1037, *1075 | |
| Wholesale Coal Trade Assn.—Coal exchange..... | 1006, 1053 |
| Why we pay more for cleaned coal..... | 654 |
| Wilkins, G. W. Transportation of coal by canal..... | 835 |
| Williams, B. W. Use of methane as a fuel..... | 988 |
| Williams Pocahontas Coal Co. Jaxon..... | 1106 |
| Williams, S. J. (Photo)..... | 485 |
| Willis, C. F. Y. M. C. A. building vs. "Y" hut..... | 486 |
| Winn, W. E. Hinckston Run mine..... | 647 |
| Wire coil made on screw. (Photo)..... | 156 |
| Wireless telegraphy..... | 1030 |
| Wisconsin Steel Co. (Photo) *702. Fire..... | 1140 |
| Witthoff, E. J. Underground mining with electric shovels..... | 1016 |
| Wood, Iowa. (Note)..... | 965 |
| Wood, R. J. Shortage of mine labor..... | 79 |
| Wooton, P. News from the capital, 21, 67, 133, 178, 225, 274, 319, 363, 405, 451, 513, 556, 602, 648, 698, 744, 785, 826, 865, 905, 949, 992, 1038, 1125, 1168 | |
| Work will win the war..... | 272 |
| WORKING MINES. See also "Cutter. Coal." "Hoisting." "Haulage." "Electricity." "Power." "Pumping." "Timbering." | |
| —Block system..... | 1152 |
| —Bounce condition, unusual. Watts..... | 1028 |
| —Brantley coal cutter..... | 596 |
| —Conveyor. Reciprocating underground. Brown..... | 682 |
| —Conveyor. Simple face. Davis *92. Discussion..... | 371, 611 |
| —Conveyors at face. Discussion..... | 142, 371 |
| —Cutters. Coal..... | 773 |
| —Deeper mining in years to come..... | 861 |
| —Entry progress. Tabulation. Hampsch..... | 63 |
| —Locating coal beyond fault. (Inq.). *797. Discussion..... | 915, 1088 |

| | Page |
|--|----------|
| WORKING MINES—Continued | |
| —Longwall. Advantages. Pocock..... | 350 |
| —Longwall mining at La Salle, Ill. Harris..... | 388 |
| —Longwall mining. Man power and discussion..... | 564, 791 |
| —Machine mining at La Salle, Ill. Harris..... | 536 |
| —Methods of operation. Brown..... | 313 |
| —Oblique faced rooms. Sutherland..... | 580 |
| —Pitch. Working a 22-deg. (Inq.)..... | 837 |
| —Pitching beds worked by longwall. Jarrett..... | 308 |
| —Scraper mining of thin bed anthracite. Humphrey..... | 316 |
| —Scraper mining in low seams. Discussion..... | 371 |
| —Shortwall mining machine. (Photo)..... | 347 |
| —Standardized system of mining..... | 266 |
| —Stripping. Anthracite. Kennedy..... | 644 |
| —Stripping coal with a grader..... | 694 |
| —Stripping. Increased output by. Vicary..... | 94 |
| —Thick coal. Method of working. Stafford..... | 890 |
| —Underground mining with electric shovels. Witthoff..... | 1016 |
| —Working 10-ft. inclined seam..... | 611 |
| Wrench, Ratchet. Lucas..... | 1104 |

Y

| | |
|---|-----|
| York, G. D. Elevation of outer rail of track..... | 284 |
| Y. M. C. A. building vs. "Y" hut. Willis..... | 486 |
| Young, H. W. Outdoor mine substations..... | 891 |
| Your troubles. Parsons..... | 341 |

Z

| | |
|--|----------------------|
| Ziegler mine. Harris..... | 252 |
| Zoning..... | 949, 994, 1126, 1169 |
| Zoning system of coal shipments. Discussion..... | 1132 |

